N787TT

1978 King Air C90

Performance

MSN: LJ-787

RidgeAire
WORLDWIDE
aviation specialists

Prepared by the worldwide aviation specialists at RidgeAire, Inc.

INTRODUCTION TO PERFORMANCE AND FLIGHT PLANNING

The graphs and tables in this section present performance information for takeoff, climb, landing and flight planning at various parameters of weight, power, altitude and temperature. All FAA approved performance information is included within this section. Examples have been presented on all performance graphs. In addition, the calculations for flight time, block speed, and fuel required for a proposed flight are presented using the conditions listed below:

CONDITIONS

AT BILLINGS:

Outside Air Temperature ..... 25°C (77°F)
Field Elevation ..... 3606 feet
Altimeter Setting 29.56
Wind ..... 360° at 10 knots
Runway 34 Length ..... 5600 feet

ROUTE OF TRIP:

BIL-V19-CZI-V247-DGW-V19E-CYS-V19-DEN

WEATHER CONDITIONS:

IFR for cruise altitude of 17,000 feet

ROUTE SEGMENT DATA:

ROUTE SEGMENT	DISTANCE NM	MEA FT	WIND AT 17,000 FT DIR/KTS	OAT AT CRUISE ALT °C	OAT AT MEA °C	ALT SET. IN. HG
BIL-SHR	88	8000	010/30	-10	0	29.56
SHR-CZI	57	9000	350/40	-10	-4	29.60
CZI-DGW	95	8000	040/45	-10	0	29.60
DGW-CYS	47	8000	040/45	-10	0	29.60
	46	8000	040/45	-10	0	29.60
CYS-DEN	81	8000	040/45	-10	0	29.60

REFERENCE: Enroute Low Altitude charts L-8 and L-9

At Denver:

Outside Air Temperature ..... 15°C (59°F)
Field Elevation ..... 5331 feet
Altimeter Setting 29.60
Wind ..... 270° at 10 knots
Runway 26 Length ..... 10,000 feet

PRESSURE ALTITUDE

To determine approximate pressure altitude at origin and destination airports, add 100 feet to field elevation for each 0.1 in. Hg below 29.92 and subtract 100 feet from field elevation for each 0.1 in. Hg above 29.92.

PRESSURE ALTITUDE AT BIL:

29.92 - 29.56 = 0.36 in. Hg

The pressure altitude at BIL is 360 feet above the field elevation.

3606 + 360 = 3966 feet

PRESSURE ALTITUDE AT DEN:

29.92 - 29.60 = 0.32 in. Hg

The pressure altitude at DEN is 320 feet above the field elevation.

5331 + 320 = 5651 feet

ENROUTE PRESSURE ALTITUDE

For enroute altitudes and MEA's this pressure correction has been ignored.

PERFORMANCE DATA FROM GRAPHS

MAXIMUM TAKE-OFF WEIGHT

Refer to the graph for Maximum Take-Off Weight Permitted By Enroute Climb Requirement.

Maximum allowable take-off weight = 9650 lbs

TAKE-OFF DISTANCE

Enter the graph for Take-Off Distance at 25°C, 3966 feet pressure altitude, 9650 pounds and 9.5 knot headwind component:

Ground Roll	2250 feet
Total Distance Over a 50 Foot Obstacle	3100 feet
Rotation Speed	97 knots
Speed at 50 Feet Above Runway	106 knots

MAXIMUM TAKE-OFF WEIGHT WITH ONE ENGINE INOPERATIVE

The Maximum Take-Off Weight chart is the only operating limitation required to meet applicable FAR requirements. Information has been presented, however, to determine the take-off weight, field requirements, and take-off flight path assuming an engine failure occurs during the take-off procedure. The following illustrates the use of these charts.

Enter the graph Take-Off Weight To Achieve Positive, One Engine Inoperative Climb At Liftoff, at 25°C, 3966 feet, to determine the maximum weight at which the accelerate-go procedure should be attempted.

Maximum Accelerate-Go Weight	9650 lbs

ACCELERATE - GO DISTANCE

The following example assumes the airplane is loaded so that take-off weight is 9650 lbs.

Enter the graph for Accelerate - Go Distance at 25°C, 3966 feet pressure altitude, 9650 pounds and 9.5 knot headwind component:

Ground Roll	2760 feet
Total Distance Over 50-Foot Obstacle	7000 feet
Take-Off Speed at Rotation	97 knots
Speed at 50 feet Above Runway	106 knots

TAKE-OFF CLIMB GRADIENT - ONE ENGINE INOPERATIVE

Enter the graph for Take-Off Climb Gradient - One Engine Inoperative, at 25°C, 3966 feet pressure altitude, and 9650 pounds:

Climb Gradient	3.2%
Climb Speed	106 knots

Calculation of horizontal distance required to clear an obstacle:

A 3.2% climb gradient is 32 feet of vertical height per 1000 feet of horizontal distance.

NOTE

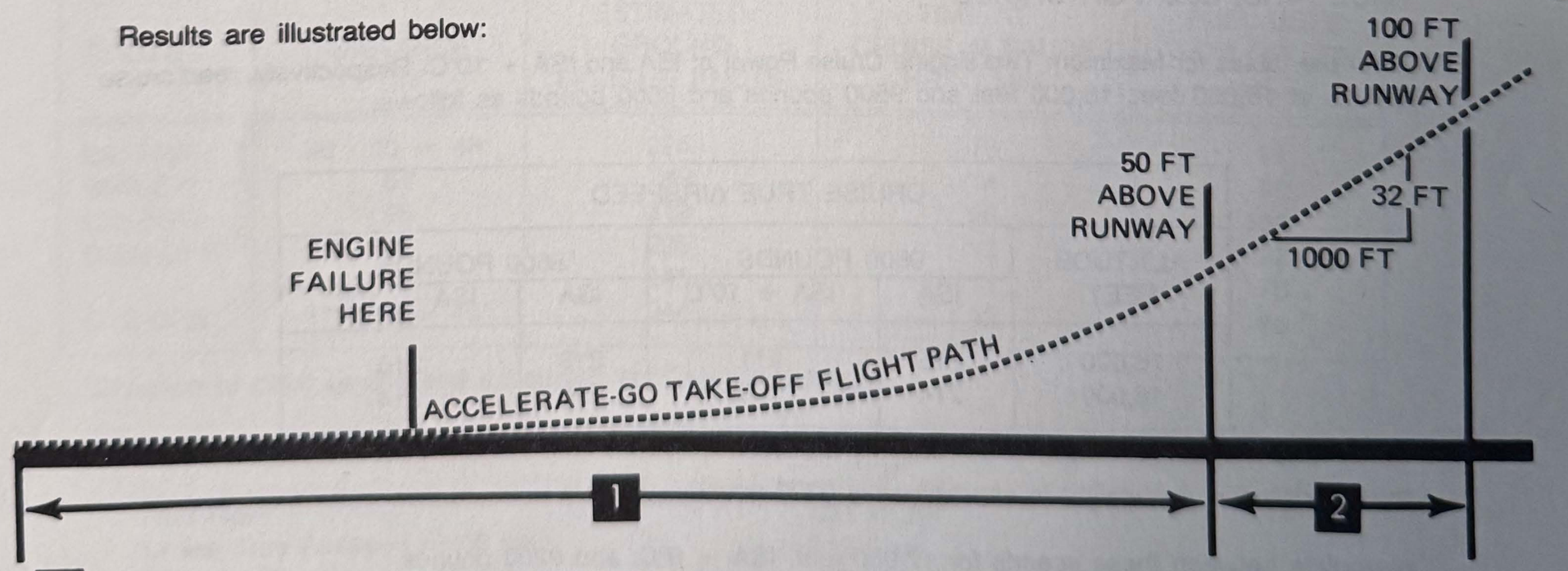
The graphs for take-off climb gradient assume a zero wind condition. Climbing into a headwind will result in higher angles of climb and hence better obstacle clearance capabilities.

Calculation of the horizontal distance to clear an obstacle 100 feet above the runway surface:

Distance from 50 feet to 100 feet = 50 feet
(100 - 50) (1000 ÷ 32) = 1563 feet

Total Distance = 7000 + 1563 = 8563 feet

Results are illustrated below:



1 ACCELERATE-GO TAKE-OFF = 7000 FEET

2 DISTANCE TO CLIMB FROM 50 FEET TO 100 FEET ABOVE RUNWAY = 1563 FEET

ROUTE SEGMENT MAGNETIC COURSE AND VARIATION

ROUTE SEGMENT	MAGNETIC COURSE	MAGNETIC VARIATION
BIL-SHR	114°	16°E
SHR-CZI	136°	15°E
CZI-DGW	131°	15°E
DGW-CYS	138°	14°E
	169°	14°E
CYS-DEN	166°	14°E

REFERENCE: Enroute Low Altitude Charts L-8 and L-9

ENROUTE ISA CONDITION

Enter the graph for ISA Conversion, at the condition indicated:

Pressure Altitude (approx)	=	17,000 feet
OAT	=	-10°C
ISA Condition	=	ISA + 9°C

TIME, FUEL AND DISTANCE TO CLIMB

Enter the graph for Time, Fuel and Distance to Climb at 25°C and 3966 feet, and -10°C and 17,000 feet, with an initial weight of 9650 lbs.

Time to Climb	=	(18 - 4)	=	14 min
Fuel Used to Climb	=	(166 - 40)	=	126 lbs
Distance Traveled	=	(48 - 8)	=	40 NM

TRUE AIRSPEED FOR CRUISE

Enter the tables for Maximum Two Engine Cruise Power at ISA and ISA + 10°C. Respectively, read cruise speeds at 16,000 feet, 18,000 feet and 9500 pounds and 8500 pounds as follows:

CRUISE TRUE AIRSPEED				
ALTITUDE FEET	9500 POUNDS		8500 POUNDS	
	ISA	ISA + 10°C	ISA	ISA + 10°C
16,000	215	211	219	215
18,000	214	209	218	214

The estimated cruise weight is approximately 9200 pounds.

Interpolate between these speeds for 17,000 feet, ISA + 9°C, and 9200 pounds.

Cruise True Airspeed = 212 knots

MAXIMUM CRUISE POWER

Enter the graph for Maximum Cruise Power at ISA + 9°C and 17,000 feet pressure altitude:

Torque Setting Per Engine	=	880 ft lbs
Indicated Outside Air Temperature	=	-6°C

FUEL FLOW

Enter the graph for Fuel Flow At Maximum Cruise Power at ISA + 9°C (or indicated outside air temperature of -6°C) and 17,000 feet pressure altitude:

Fuel Flow Per Engine	=	213 lbs/hr
Total Fuel Flow	=	426 lbs/hr

NOTE

Torque setting and fuel flows can also be obtained from tables.

TIME, FUEL AND DISTANCE TO DESCEND

Enter the graph for Time, Fuel and Distance to Descend at 17,000 feet and at 5651 feet.

Time to Descend	=	(15 - 5.5)	=	9.5 min
Fuel to Descend	=	(77 - 31)	=	46 lbs
Distance to Descend	=	(48 - 16)	=	32 NM

TIME AND FUEL USED AT MAXIMUM CRUISE POWER

Time and fuel used were calculated at maximum cruise power as follows:

Time = Distance ÷ Ground Speed

Fuel Used = (Time) (Total Fuel Flow)

Results are as follows:

ROUTE	DISTANCE NM	ESTIMATED GROUND SPEED ~ KNOTS	TIME AT CRUISE ALTITUDE HRS : MIN	FUEL USED FOR CRUISE LBS
BIL-SHR	88 - 40 = 48*	225	: 13	91
SHR-CZI	57	249	: 14	99
CZI-DGW	95	219	: 26	185
DGW-CYS	47	225	: 13	92
	46	245	: 11	78
CYS-DEN	81 - 32 = 49*	244	: 12	85

*Distance to climb or descend subtracted from segment distance

The fuel used at cruise altitude from BIL to SHR at 17,000 feet and -10°C (ISA +9°C) is:

Fuel Flow	426 lbs/hr
Cruise True Airspeed (9200 lbs)	212 knots
Distance Traveled at 17,000 feet	48 NM
Estimated Ground Speed	225 knots
Fuel Used for 48 NM at 225 knots GS	91 lbs

The total fuel used from BIL to SHR is: 126 + 91 = 217 lbs

The estimated weight upon reaching SHR is: Take-off weight of 9650 - 217 = 9431 lbs

NOTE

Two engine rate of climb was determined for cruise altitude and estimated weight at SHR. The MEA at SHR was the highest MEA encountered during the flight; the one engine inoperative climb and service ceiling were determined for the MEA and weight at SHR.

DETERMINATION OF FLIGHT TIME,
BLOCK SPEED AND FUEL REQUIREMENTS

ITEM	TIME HRS: MIN	FUEL POUNDS	DISTANCE NAUTICAL MILES
Start, Runup, Taxi, and Takeoff	0:00	55	0
Climb	0:14	126	40
Cruise	1:29	630	342
Descent	0:10	46	32
TOTAL	1:53	857	414

Total Flight Time: 1 Hour, 53 Minutes

Block Speed: 414 NM ÷ 1 Hour 53 Minutes = 220 Knots

A 45-minute reserve at maximum recommended cruise power was assumed for convenience. However, maximum range power could have been used.

(0:45) (488 lbs/hr) = 366 lbs

TOTAL FUEL

857 + 366 = 1223 lbs

LANDING WEIGHT

The estimated landing weight is determined by subtracting the fuel required for the trip from the ramp weight.

Ramp Weight	=	9705 lbs
Fuel Required for Total Trip	=	1223 lbs
Landing Weight	=	9705 - 1223 = 8482 lbs

LANDING DISTANCE

Enter the graph Landing Distance Without Propeller Reversing, Flaps 100% at 15°C, 5651 feet pressure altitude, 10 knot headwind.

Ground Roll	=	1200 feet
Total Over 50 foot Obstacle	=	2125 feet
Approach Speed	=	100 knots

CLIMB - BALKED LANDING

Enter the graph Climb-Balked Landing at 15°C, 5651 feet and 8482 lbs.

Rate of Climb	=	950 ft/min
Climb Gradient	=	9.4%

COMMENTS PERTINENT TO THE USE OF PERFORMANCE GRAPHS

1. In addition to presenting the answer for a particular set of conditions, the example on a graph also presents the order in which the graph should normally be used (e.g., if the first item in the example is OAT, then enter the graph at the known OAT).

2. The reference lines indicate where to begin following the guide lines. Always project to the reference line first, then follow the guide lines to the next known item.

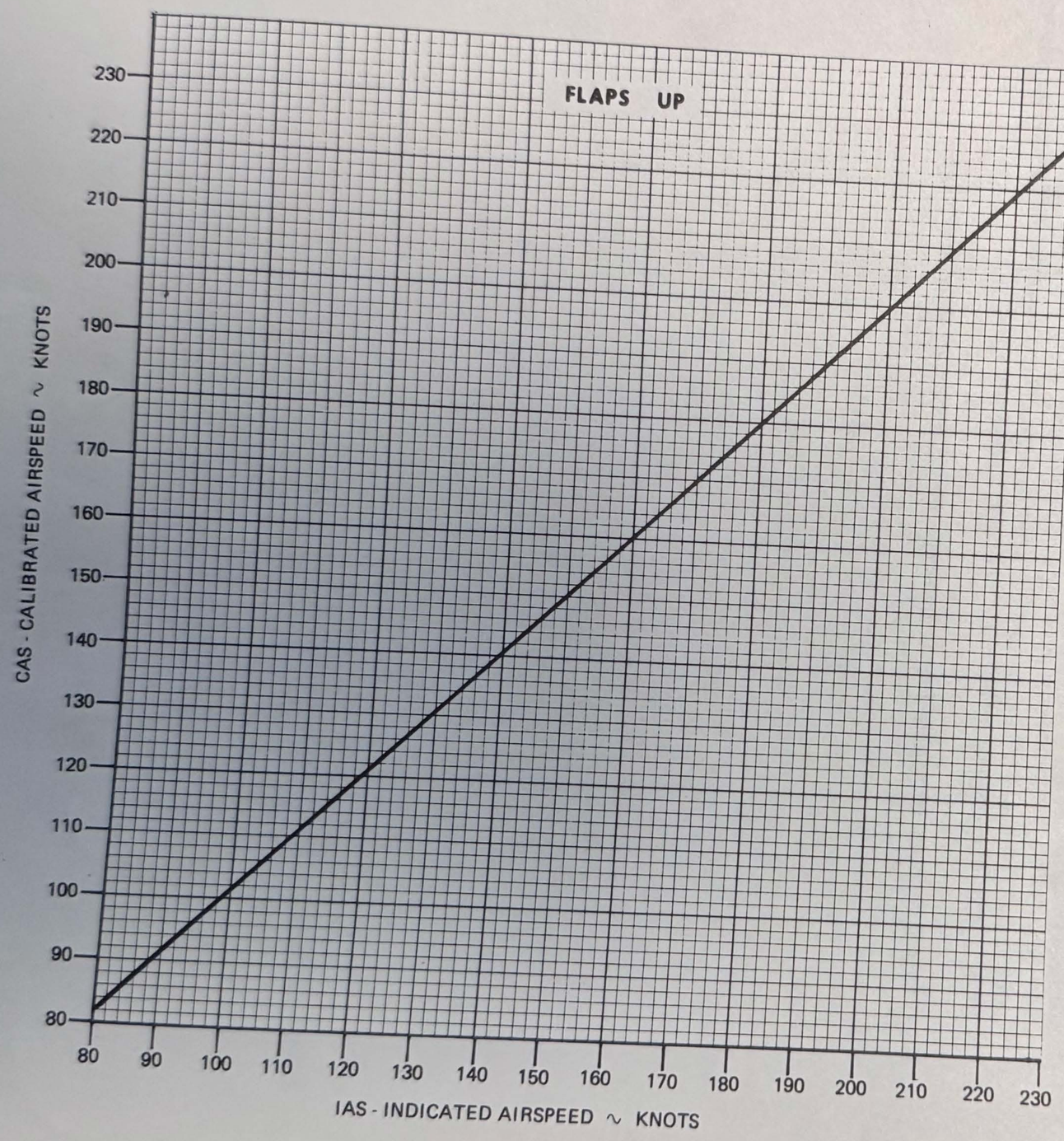
3. Indicated airspeeds (IAS) were obtained by using the Airspeed Calibration Normal System graph.

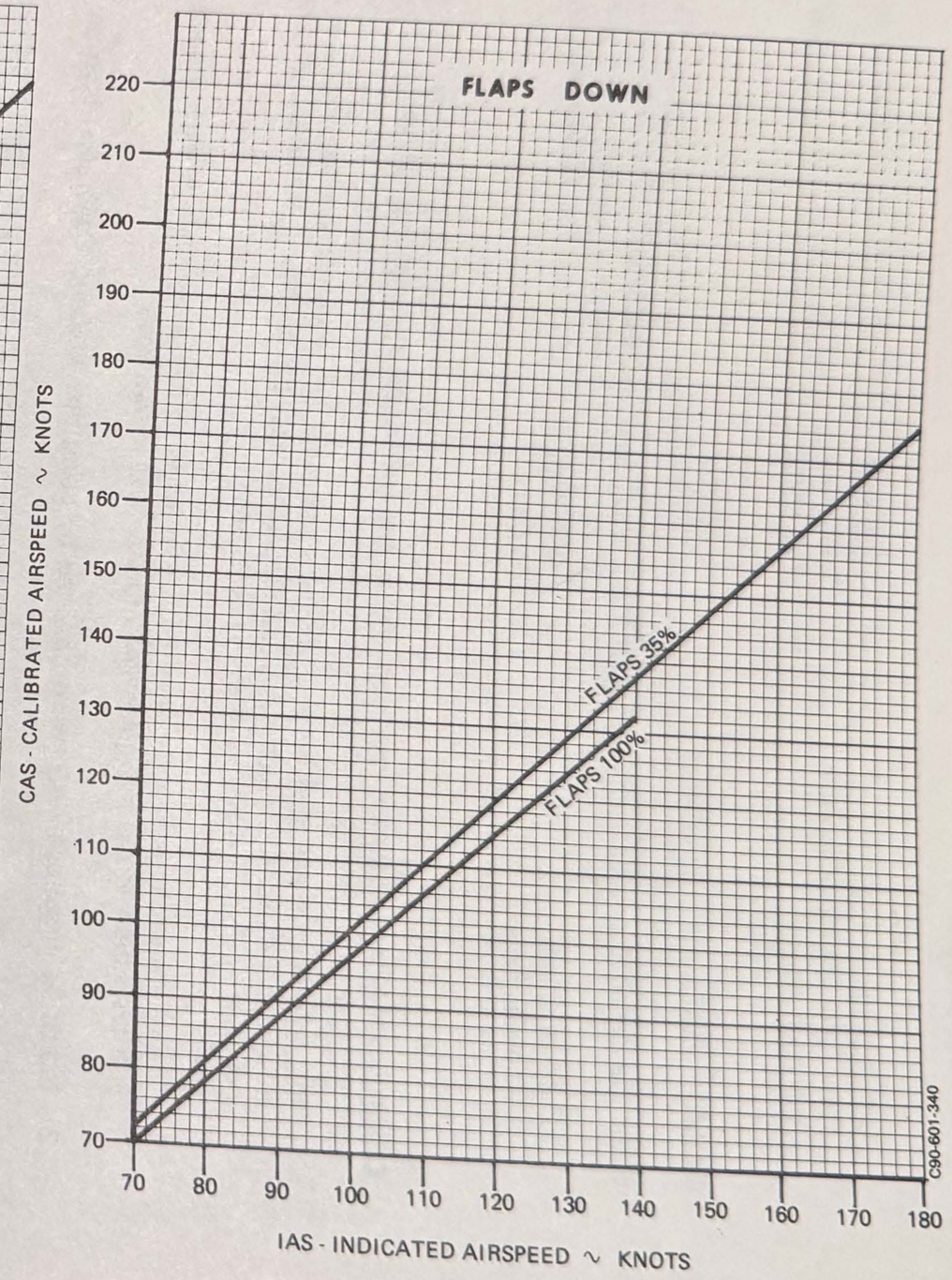
4. The associated conditions define the specific conditions for which performance parameters have been determined. They are not intended to be used as instructions; however, performance values determined from charts can only be achieved if specified conditions exist.

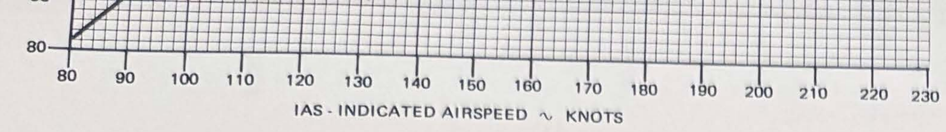
5. The full amount of usable fuel is available for all approved flight conditions.

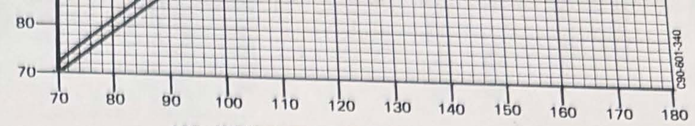
AIRSPEED CALIBRATION — NORMAL SYSTEM

WEIGHT-9650 LBS



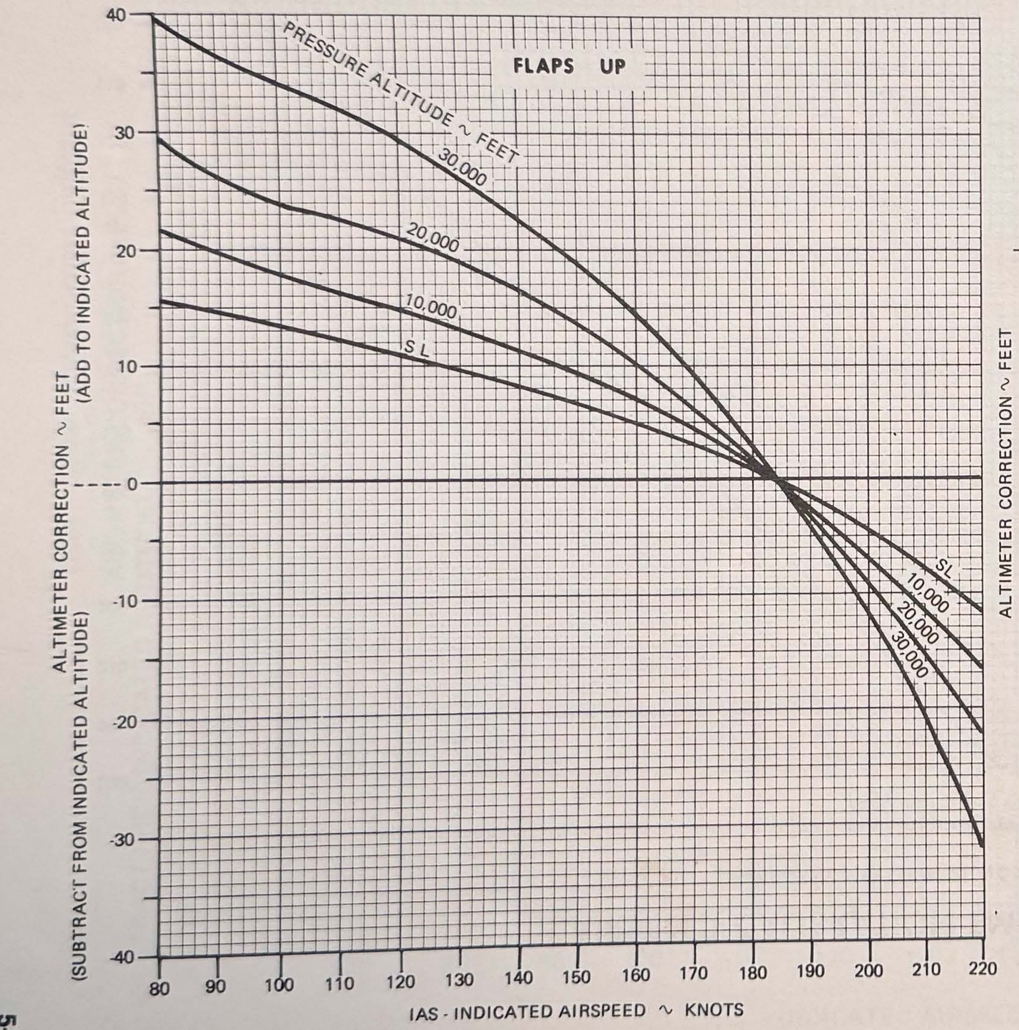


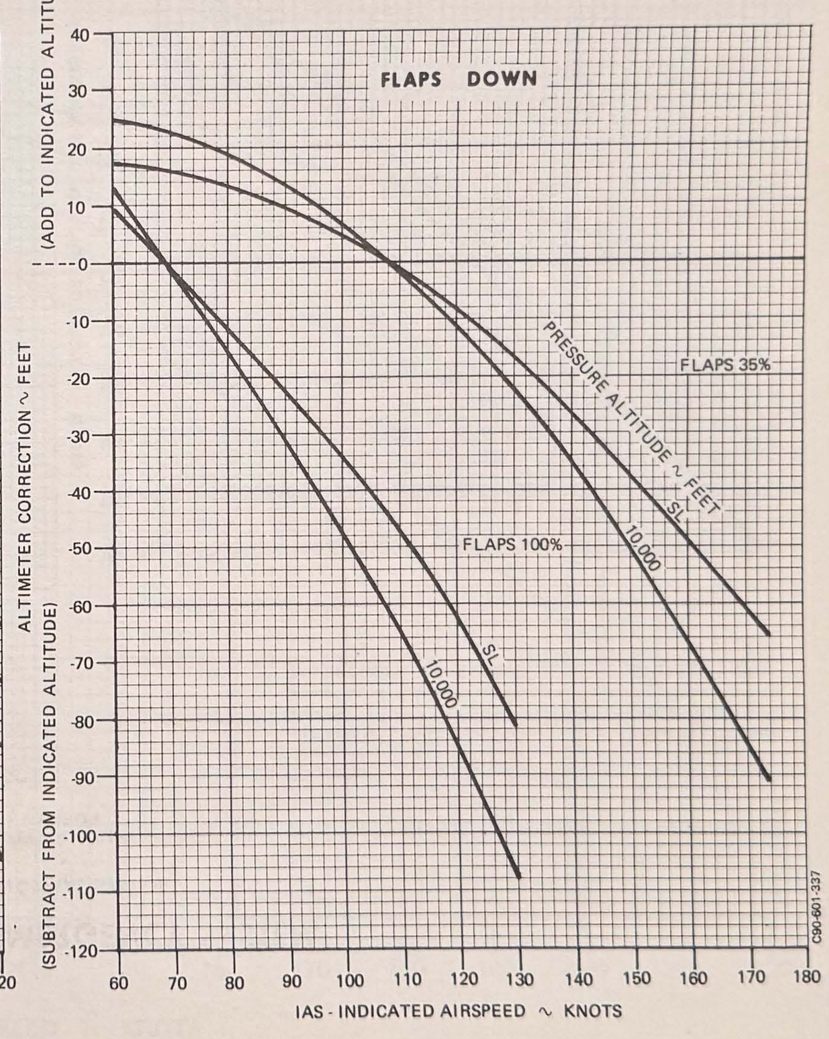




ALTIMETER CORRECTION — NORMAL SYSTEM

WEIGHT-9650 LBS

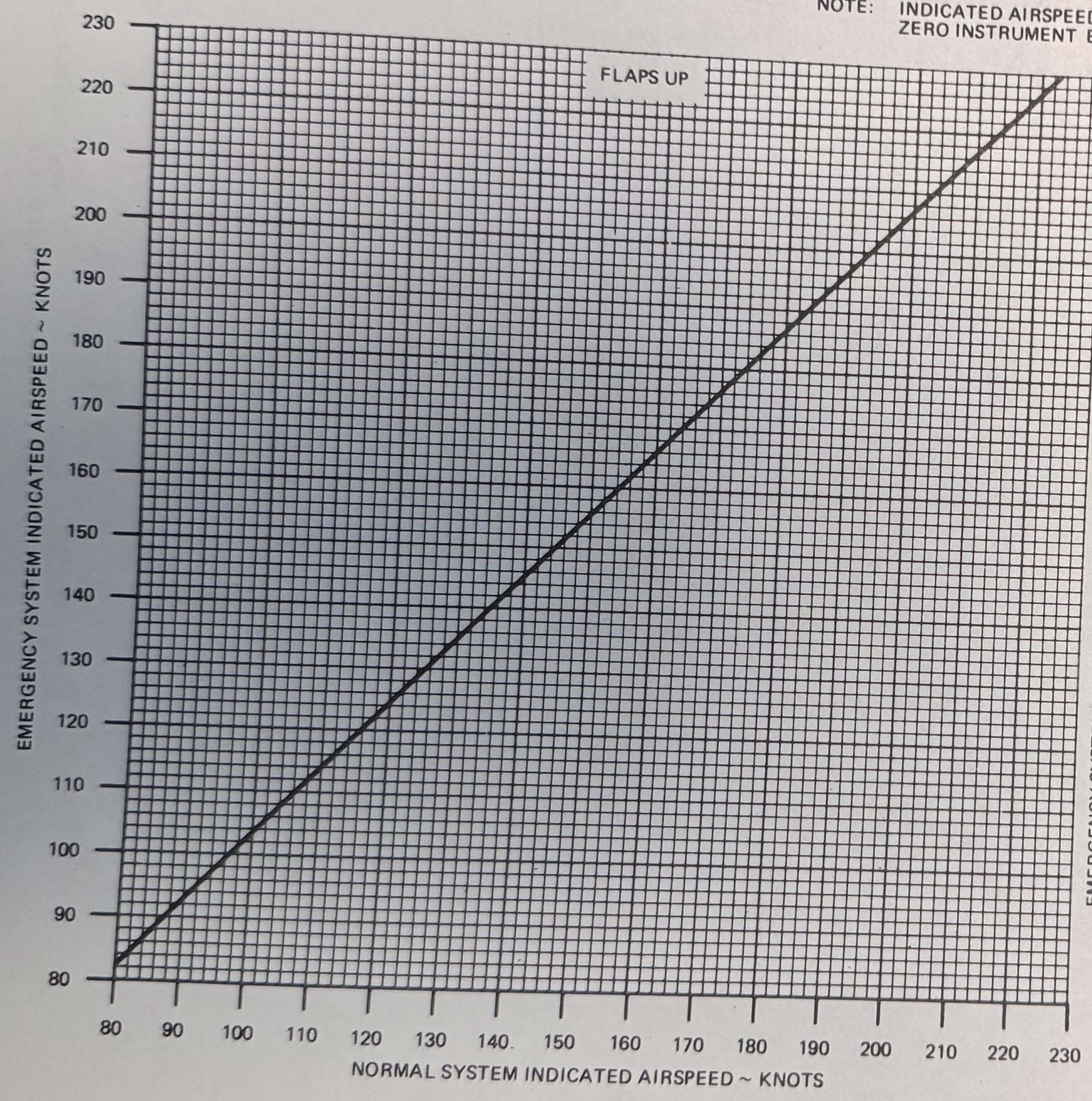




AIRSPEED CALIBRATION-EMERGENCY SYSTEM

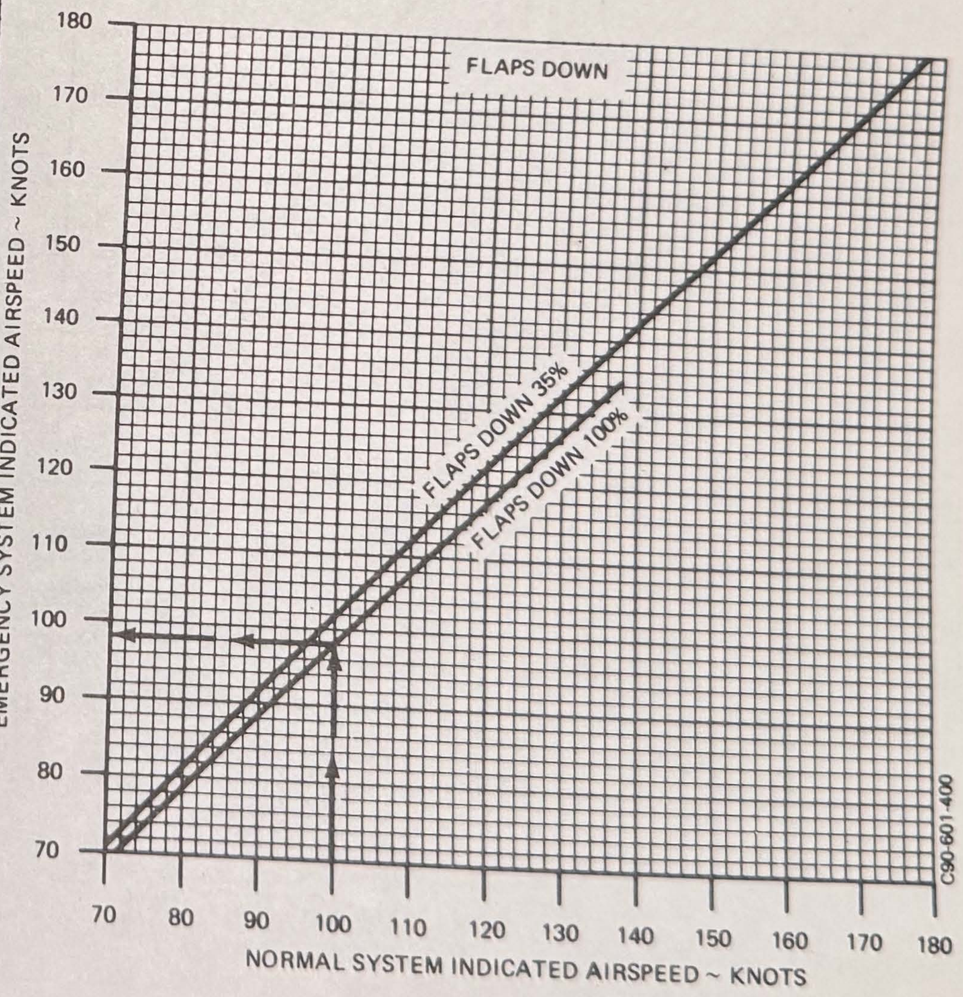
EMERGENCY SYSTEM VS NORMAL SYSTEM

NOTE: INDICATED AIRSPEED ASSUMES ZERO INSTRUMENT ERROR

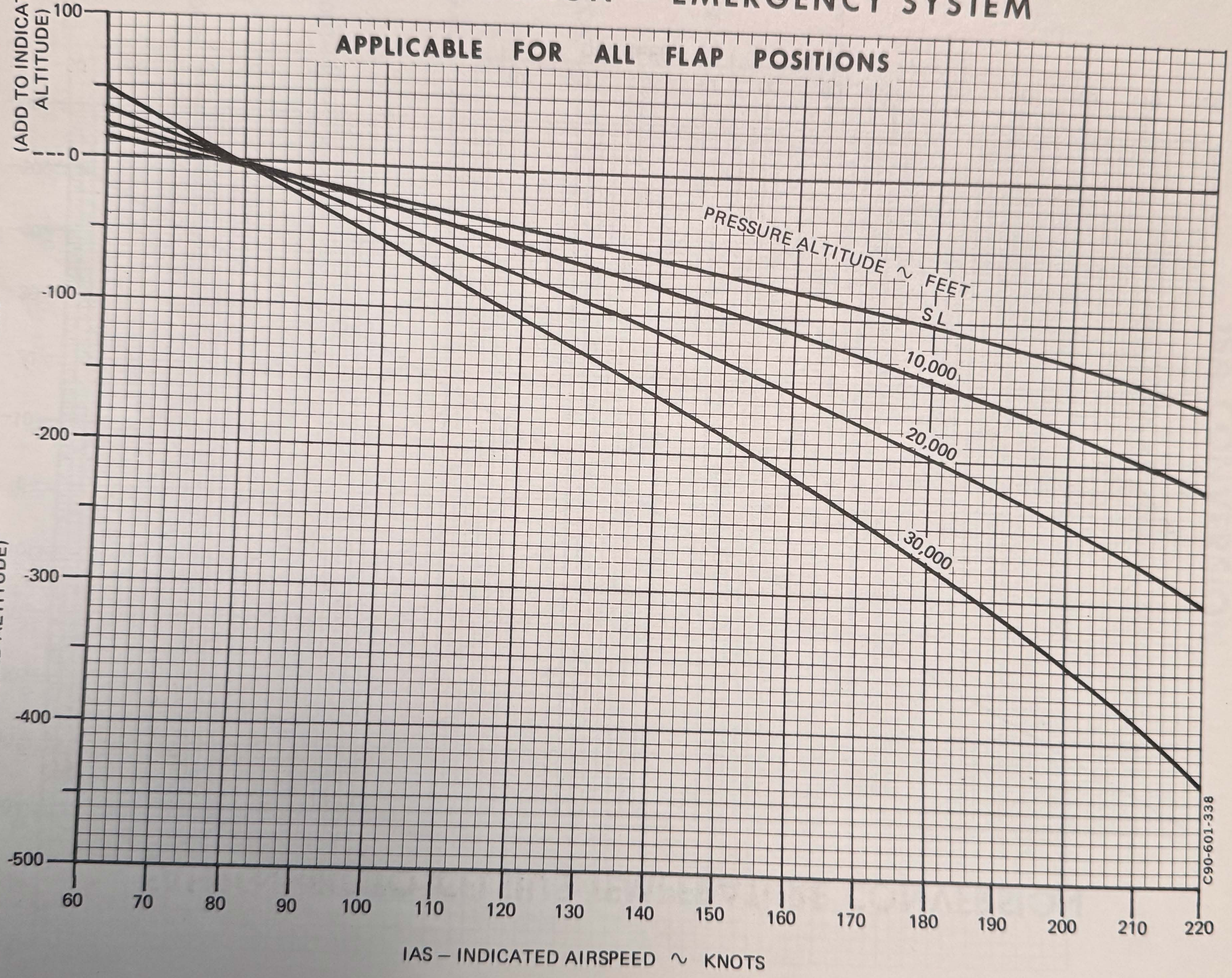


EXAMPLE:

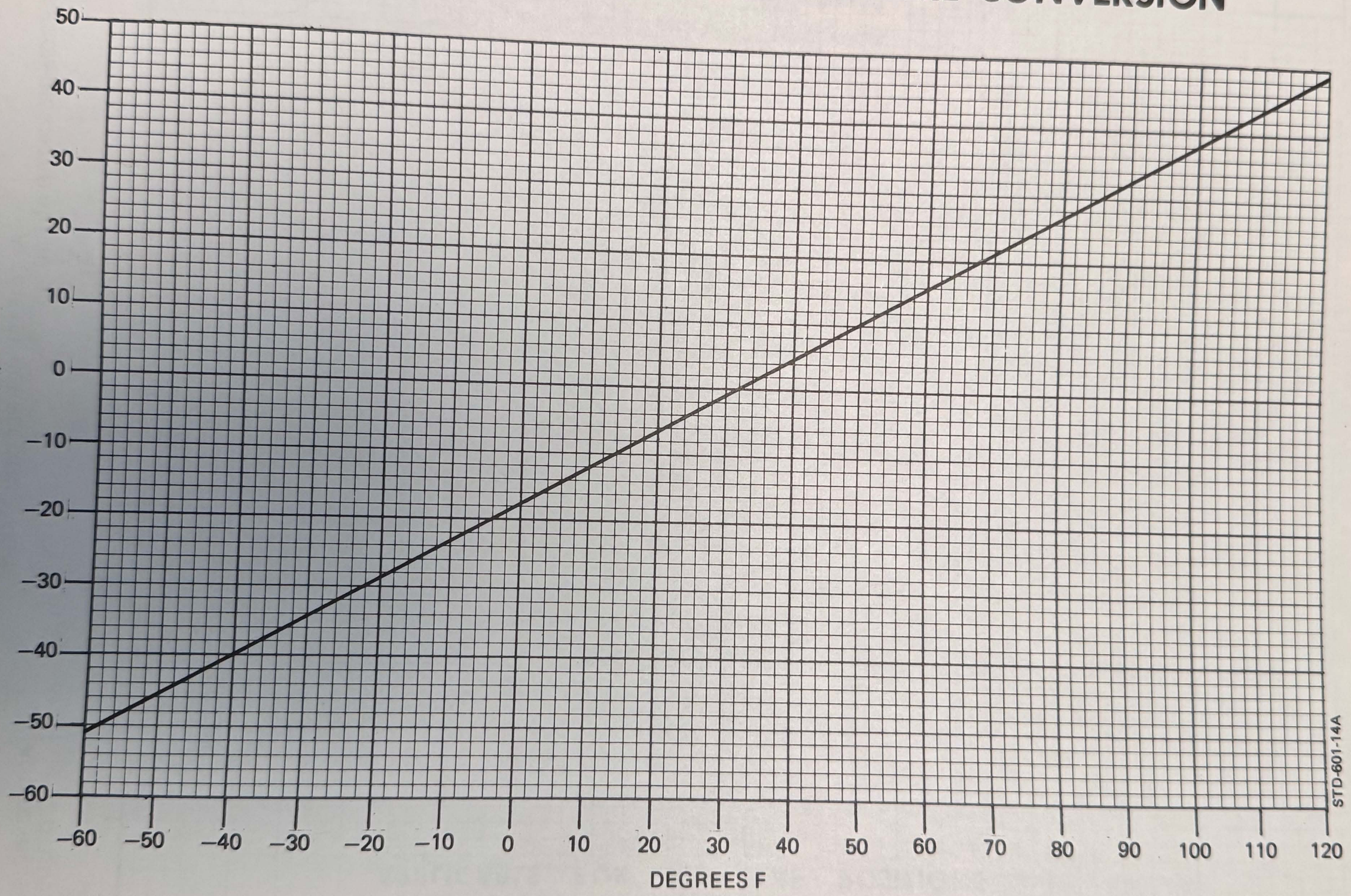
IAS NORMAL SYSTEM	100 KTS (115 MPH)
FLAPS	DOWN (100%)
IAS EMERGENCY SYSTEM	98 KTS (113 MPH)



ALTIMETER CORRECTION – EMERGENCY SYSTEM

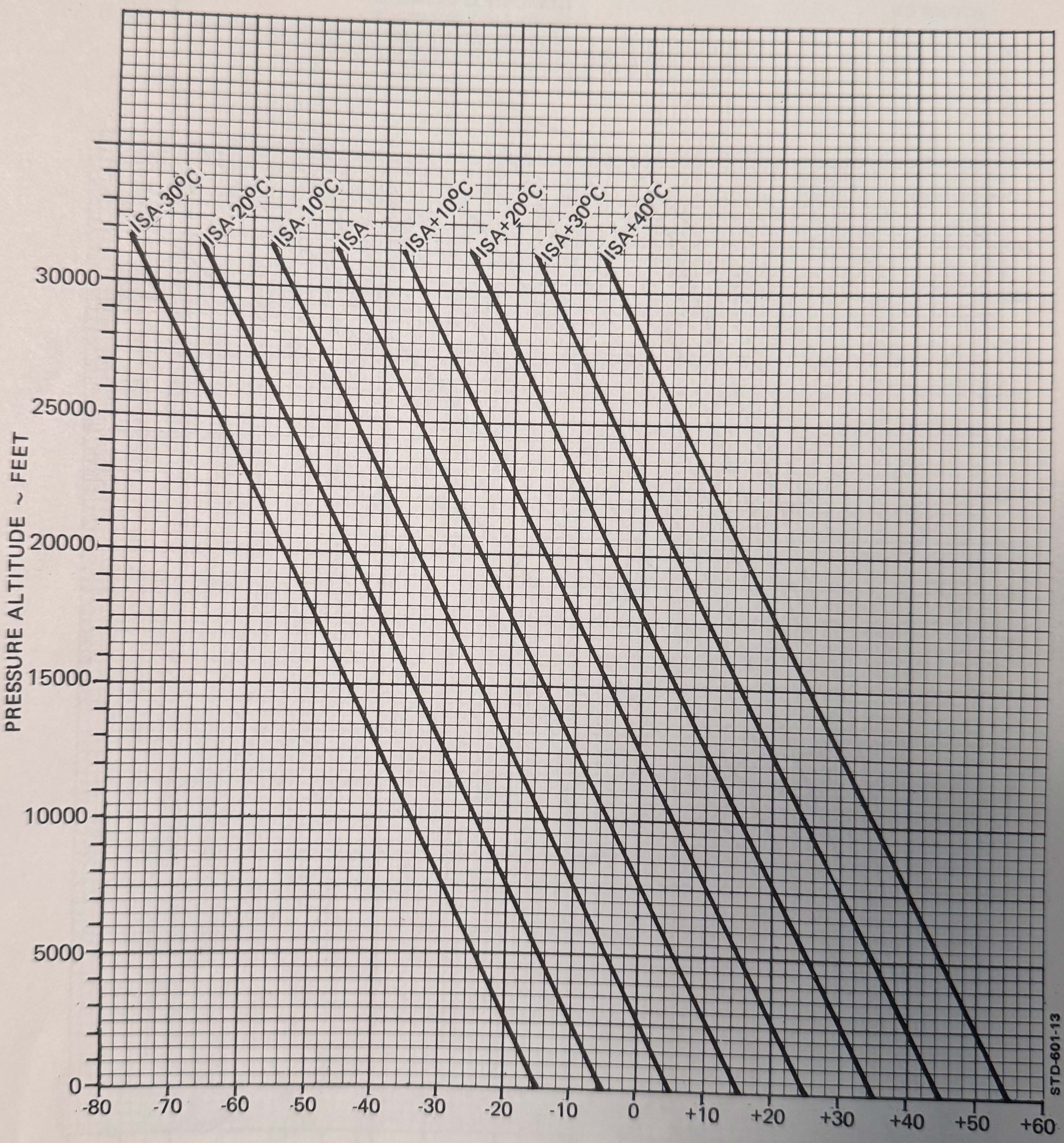


FAHRENHEIT TO CELSIUS TEMPERATURE CONVERSION



ISA CONVERSION

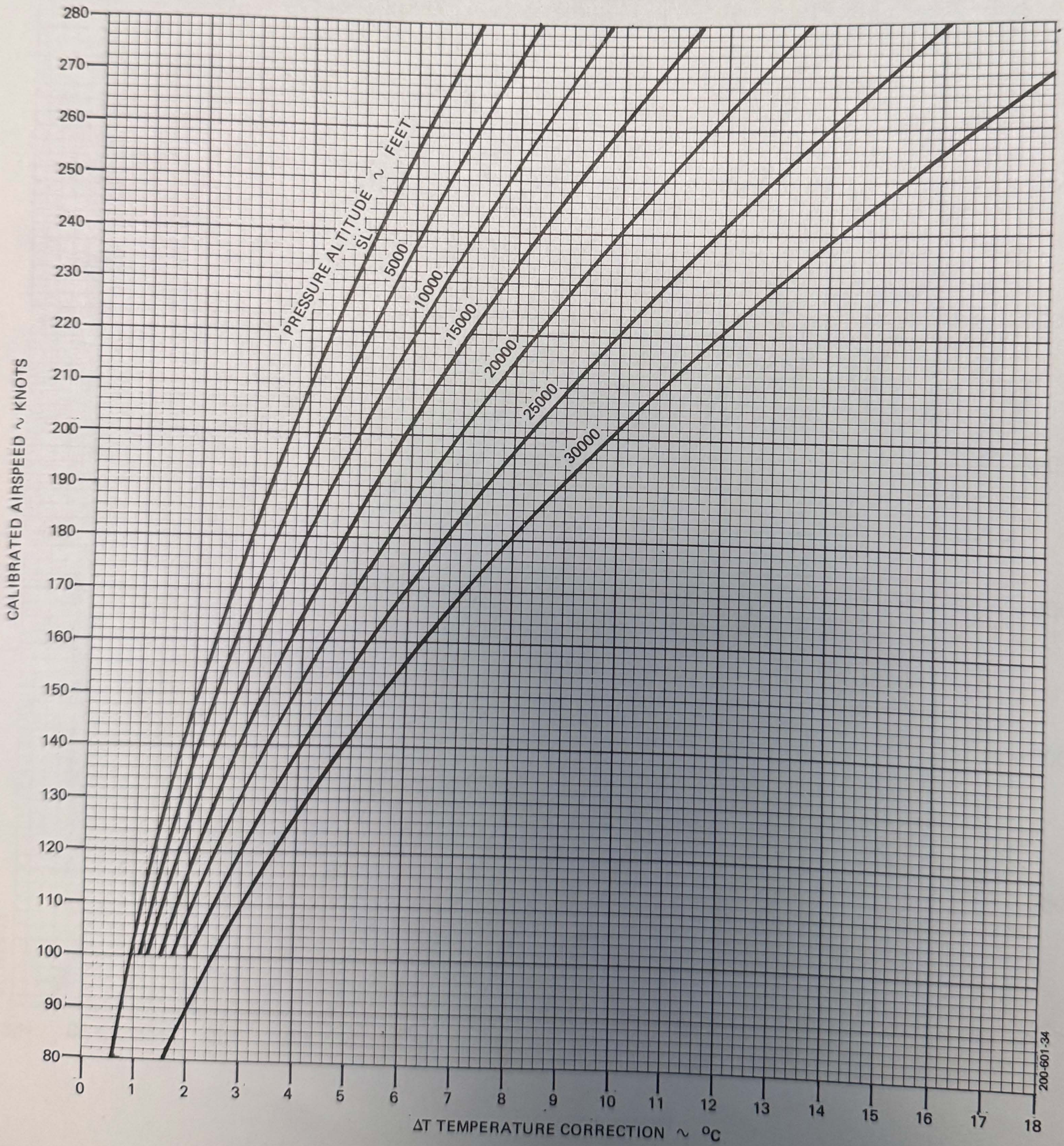
PRESSURE ALTITUDE vs OUTSIDE AIR TEMPERATURE



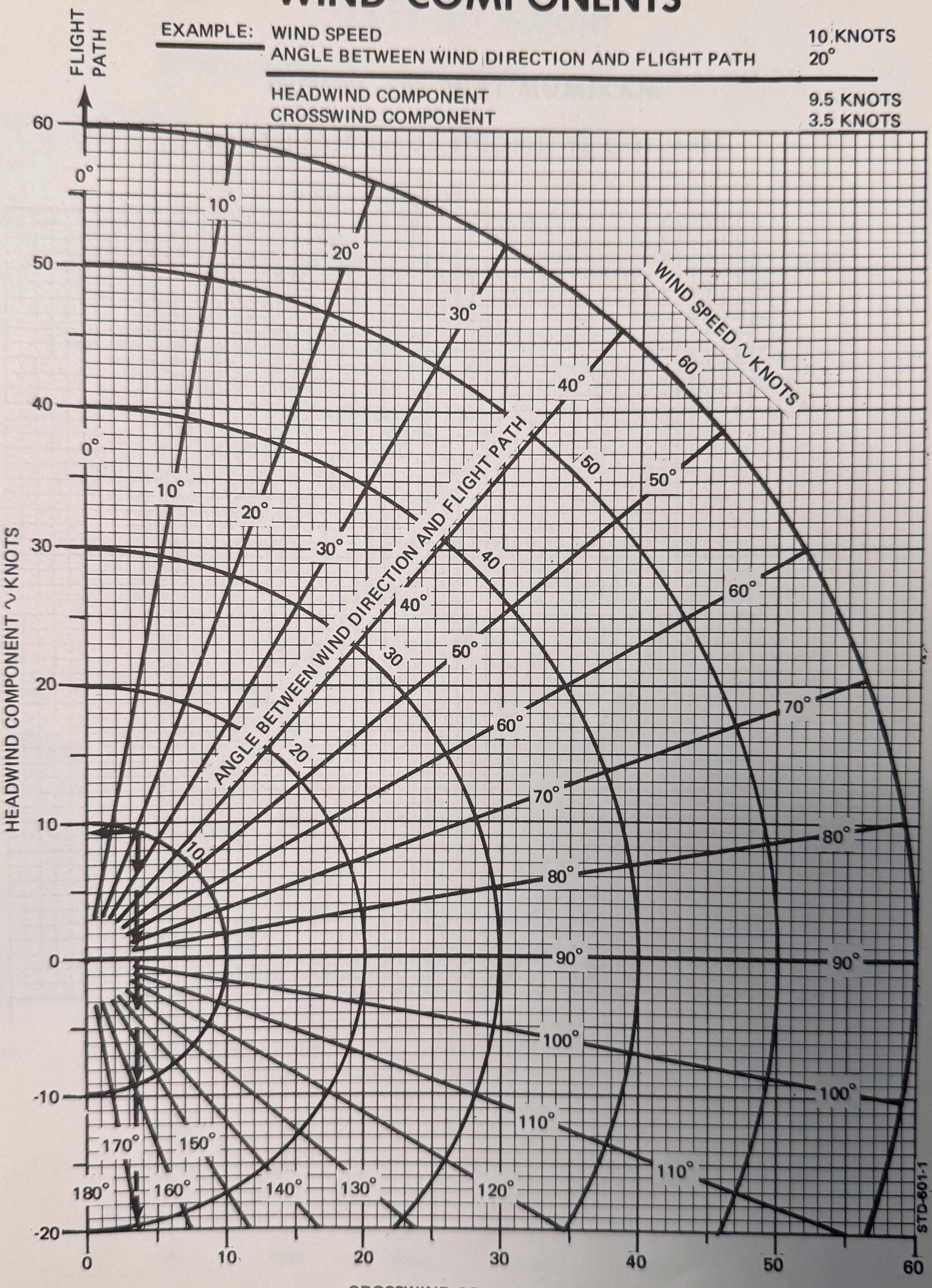
INDICATED OUTSIDE AIR TEMPERATURE CORRECTION

STANDARD DAY (ISA)

NOTE: SUBTRACT ΔT FROM INDICATED (GAGE) OAT TO OBTAIN TRUE OAT. (ΔT ASSUMES A RECOVERY FACTOR OF 0.7)

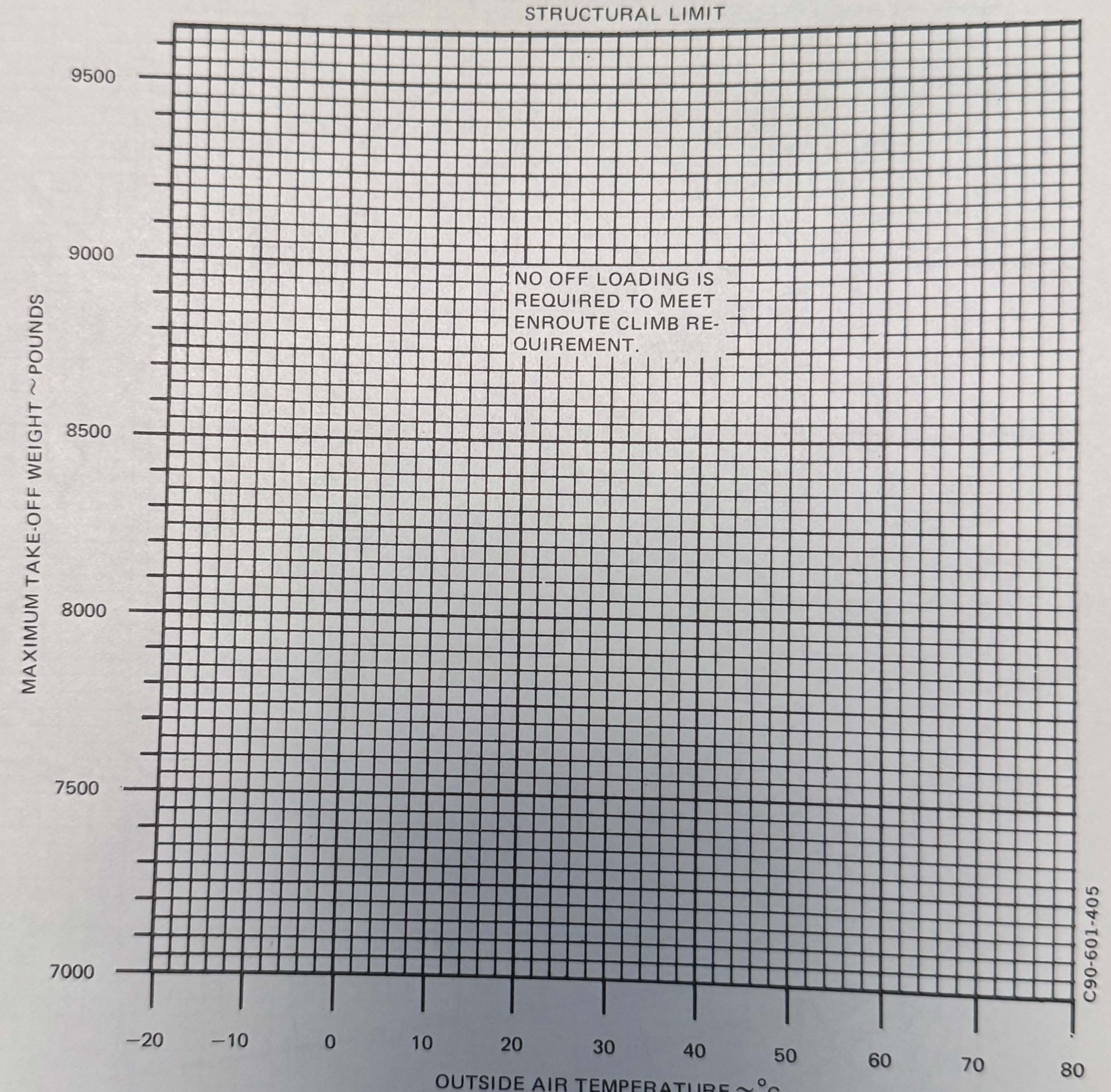


WIND COMPONENTS



MAXIMUM TAKE-OFF WEIGHT

PERMITTED BY ENROUTE CLIMB REQUIREMENT



TAKE-OFF WEIGHT

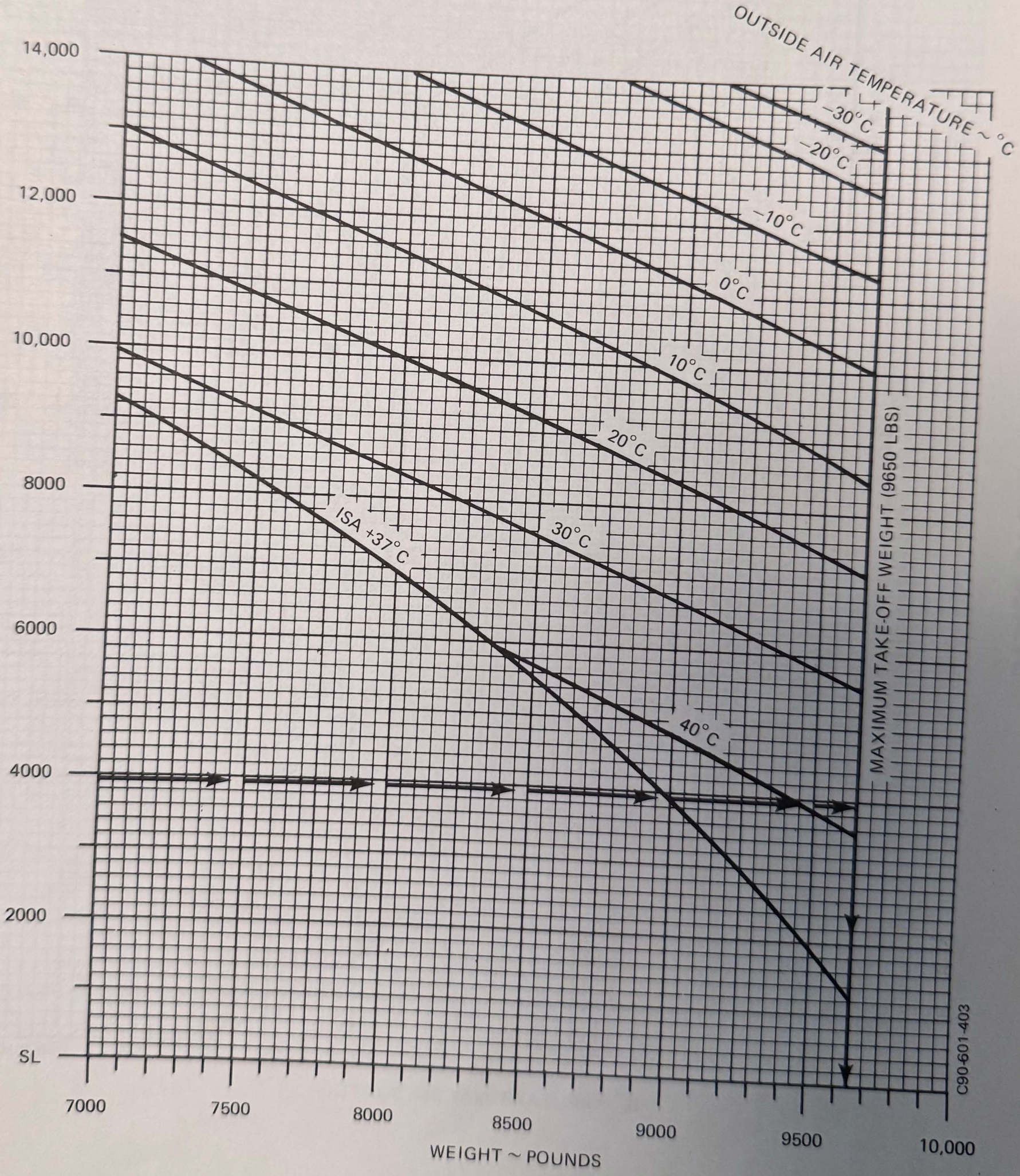
TO ACHIEVE POSITIVE SINGLE-ENGINE RATE-OF-CLIMB AT LIFT-OFF

ASSOCIATED CONDITIONS:

POWER	SINGLE ENGINE EMERGENCY
FLAPS	UP (0%)
LANDING GEAR	DOWN

EXAMPLE:

PRESSURE ALTITUDE	3966 FT
OAT	25°C
TAKE-OFF WEIGHT	9650 LBS

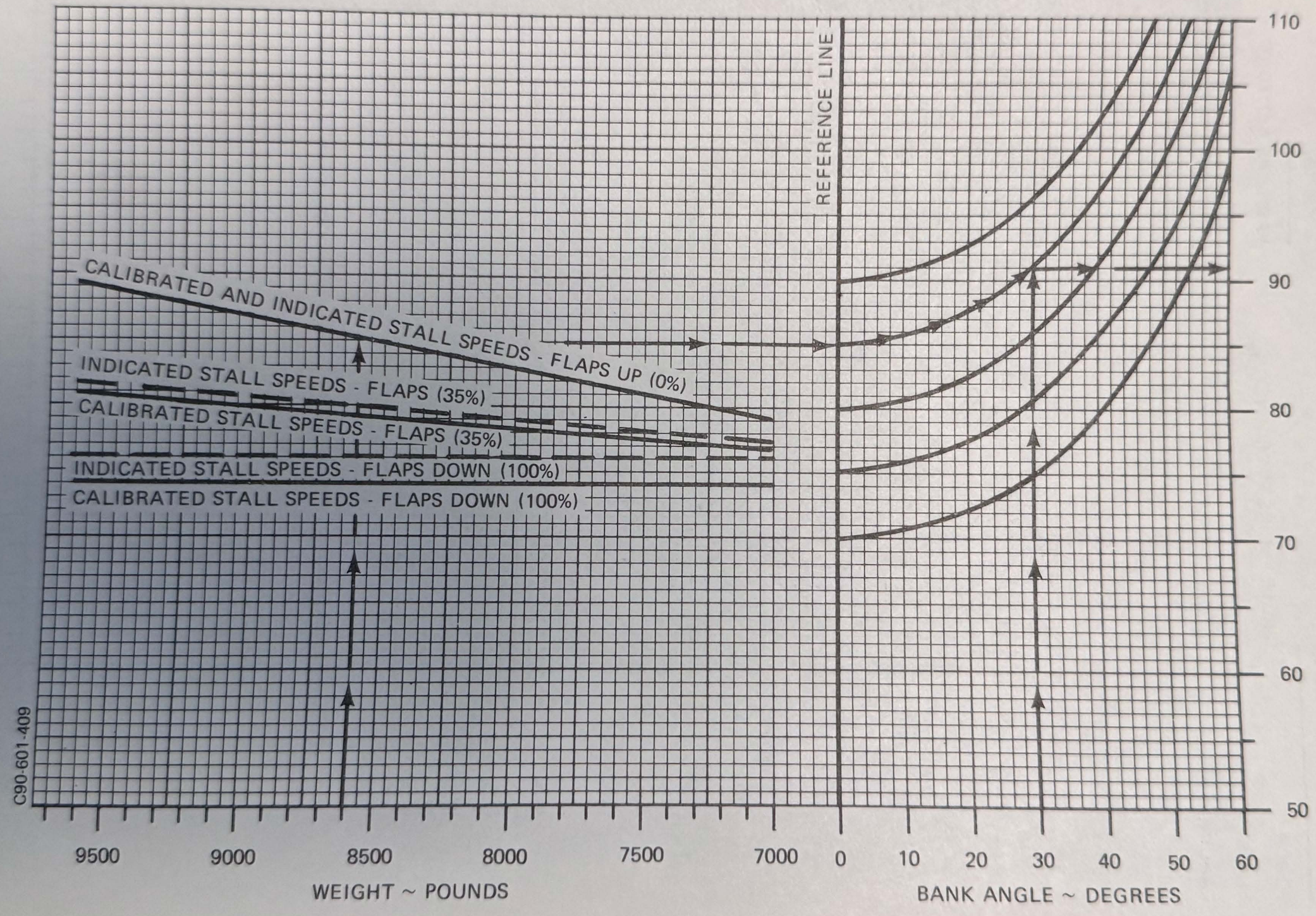


STALL SPEEDS-POWER IDLE

NOTES:
1. THE MAXIMUM ALTITUDE LOSS EXPERIENCED WHILE CONDUCTING STALLS IN ACCORDANCE WITH C.A.M. 3.120 WAS 800 FEET.
2. A NORMAL STALL RECOVERY TECHNIQUE MAY BE USED.
3. STALLS WITH ENGINES OPERATING AT MAXIMUM CONTINUOUS POWER REDUCES STALL SPEEDS UP TO 15 KNOTS.

EXAMPLE:

WEIGHT	8600 LBS
FLAPS	UP (0%)
ANGLE OF BANK	30°
STALL SPEED	91 KTS (105 MPH)



MINIMUM TAKE-OFF POWER AT 2200 RPM

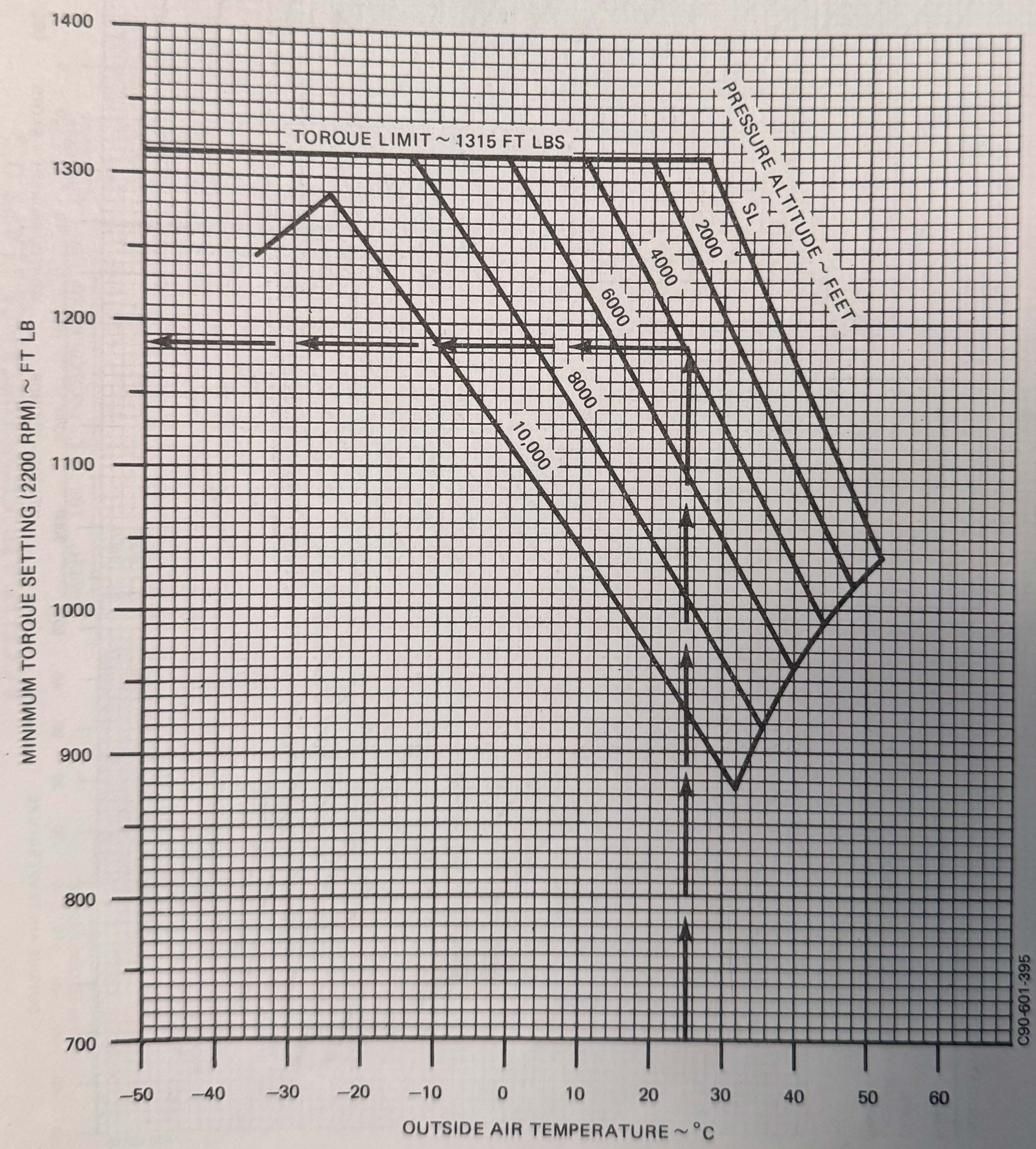
70 KNOTS

NOTE:

THE POWER (TORQUE) INDICATED IS THE MINIMUM VALUE FOR WHICH TAKE-OFF PERFORMANCE CAN BE OBTAINED. EXCESS POWER, WHICH CAN BE DEVELOPED WITHOUT EXCEEDING ENGINE LIMITATIONS, MAY BE UTILIZED.

EXAMPLE:

OAT AT TAKE-OFF	25°C
AIRPORT PRESSURE ALTITUDE	3966 FT
MINIMUM TAKE-OFF POWER	1185 FT LBS



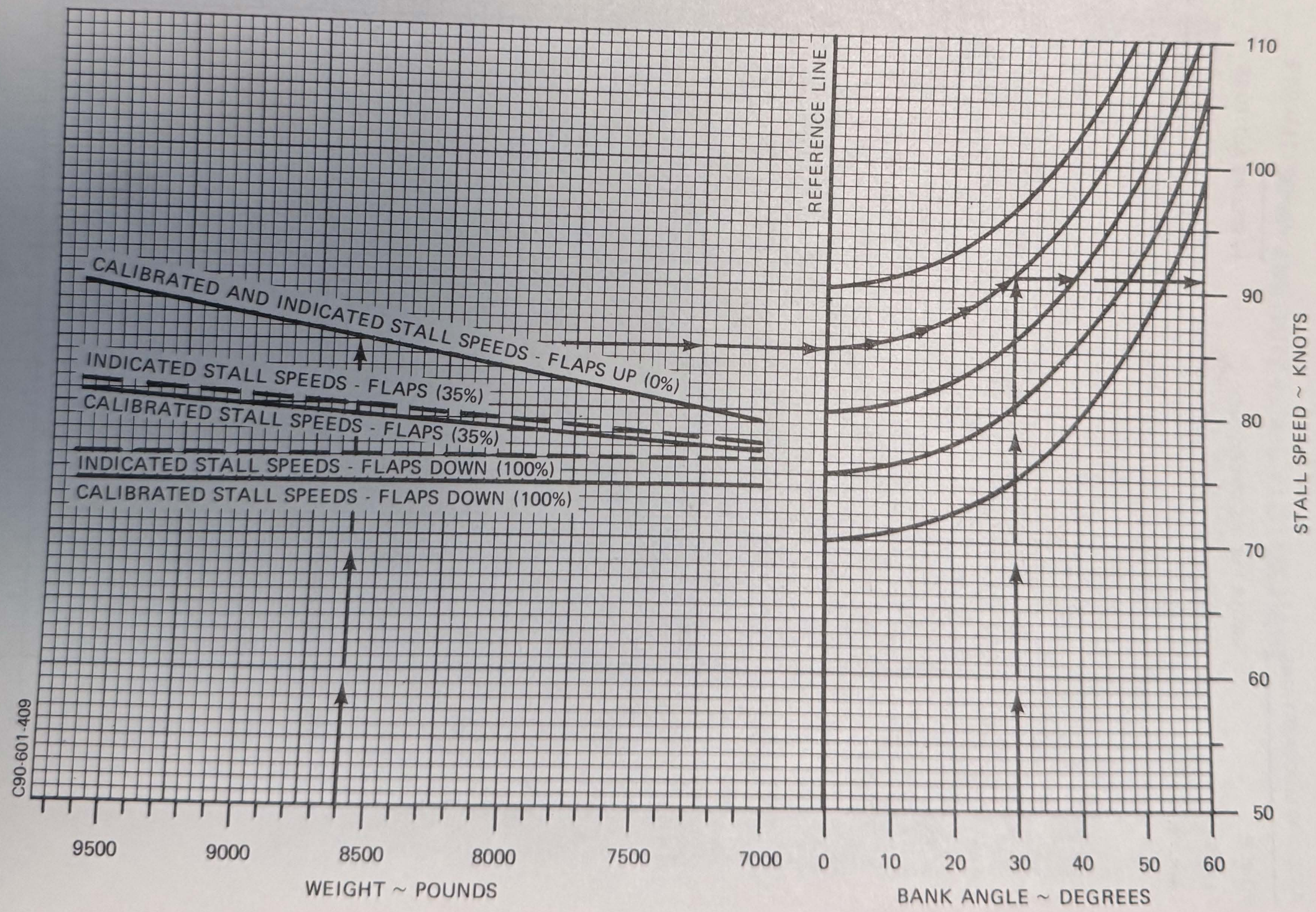
1220

STALL SPEEDS-POWER IDLE

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FLAPS	UP (0%)
ANGLE OF BANK	30°
STALL SPEED	91 KTS (105 MPH)



TAKE-OFF DISTANCE

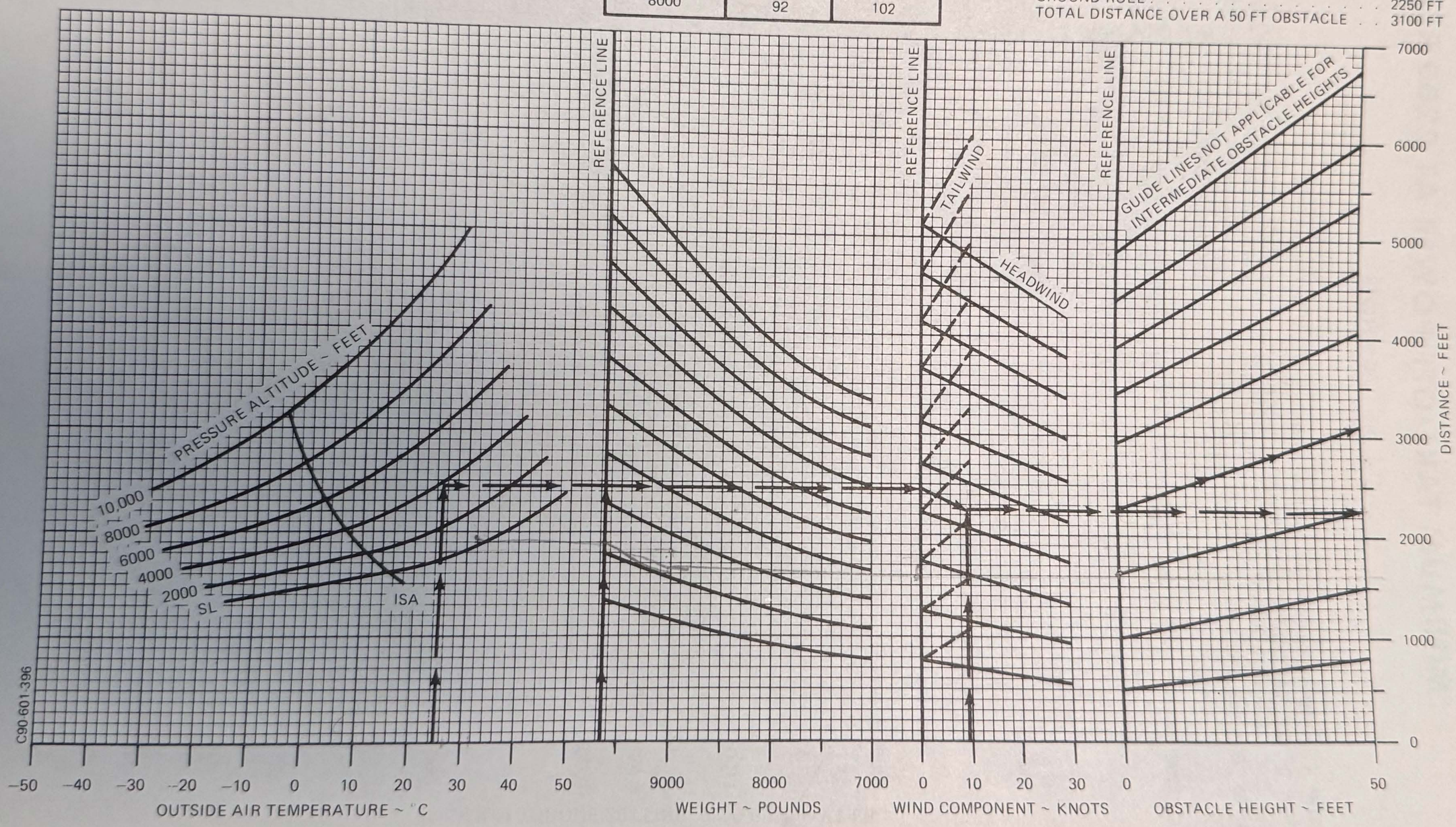
ASSOCIATED CONDITIONS:

POWER	TAKE-OFF POWER SET BEFORE BRAKE RELEASE
FLAPS	UP (0%)
LANDING GEAR	RETRACT AFTER LIFT OFF
RUNWAY	PAVED, LEVEL, DRY SURFACE

WEIGHT ~ LBS	TAKE-OFF SPEED KTS ~ IAS	
	ROTATION	50 FT
9650	97	106
9500	96	105
9000	95	104
8500	94	103
8000	92	102

EXAMPLE:

OAT	25° C
PRESSURE ALTITUDE	3966 FT
TAKE-OFF WEIGHT	9650 LBS
HEADWIND COMPONENT	9.5 KTS
GROUND ROLL	2250 FT
TOTAL DISTANCE OVER A 50 FT OBSTACLE	3100 FT



ACCELERATE-STOP DISTANCE-FLAPS 0%

ASSOCIATED CONDITIONS:

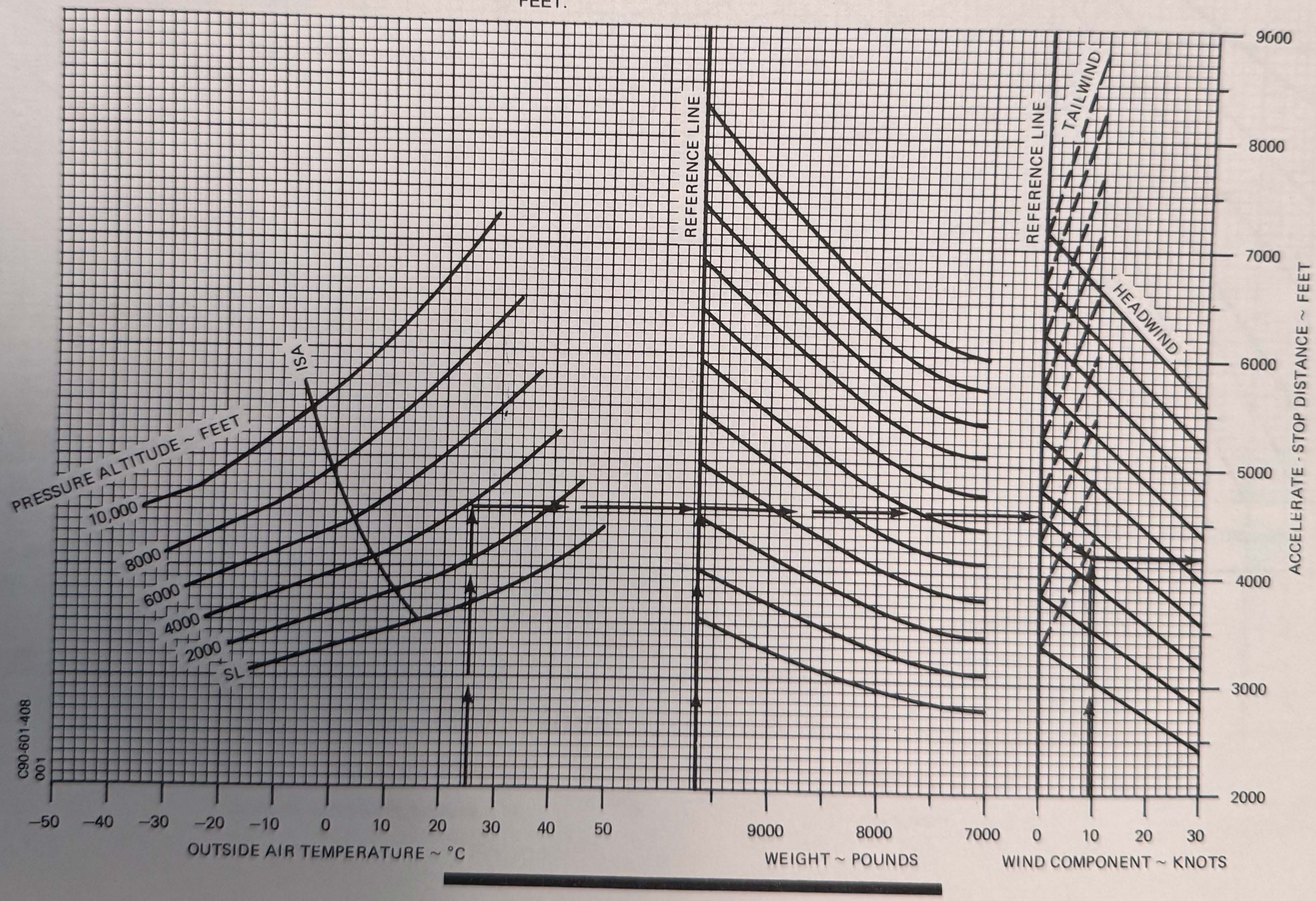
POWER	1. TAKE - OFF POWER SET BEFORE BRAKE RELEASE 2. BOTH ENGINES IDLE AT DECISION SPEED
FLAPS	UP (0%)
BRAKING	MAXIMUM
RUNWAY	PAVED, LEVEL, DRY SURFACE

WEIGHT ~ LBS	DECISION SPEED ~ IAS
9650	97
9500	96
9000	95
8500	94
8000	92

EXAMPLE:

OAT	25°C
PRESSURE ALTITUDE	3966 FT
WEIGHT	9650 LBS
WIND COMPONENT	9.5 KTS
ACCELERATE AND STOP DISTANCE	4190 FT

NOTES:
1. DISTANCES INCLUDE A 3-SECOND RECOGNITION TIME.
2. INCREASE THE DISTANCE OBTAINED FROM THIS CHART BY 10 PERCENT, BUT NOT MORE THAN 540 FEET.



ACCELERATE-GO DISTANCE

ASSOCIATED CONDITIONS:

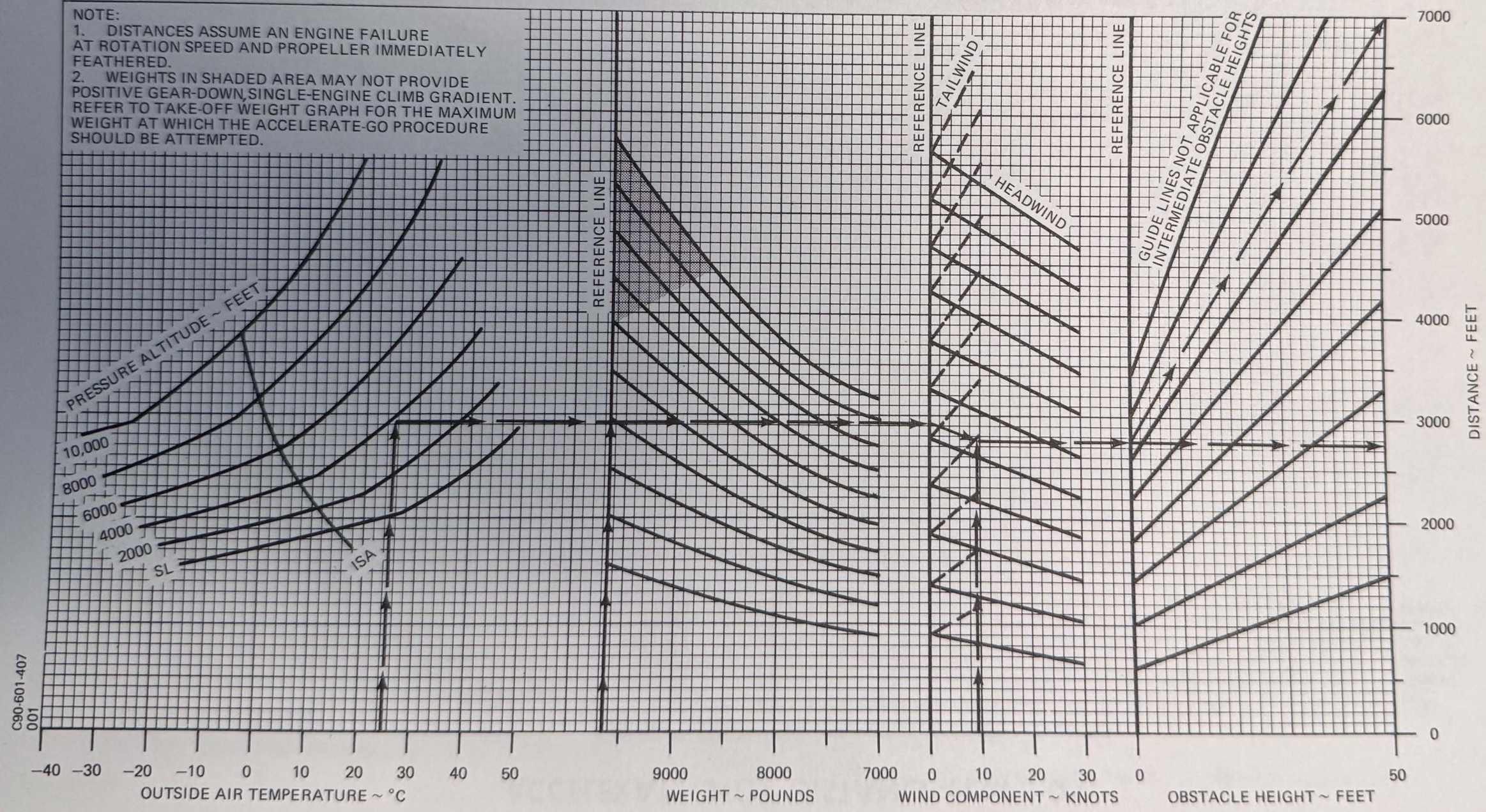
POWER	TAKE - OFF POWER SET BEFORE BRAKE RELEASE
FLAPS	UP (0%)
LANDING GEAR	RETRACTED AFTER LIFT-OFF
RUNWAY	PAVED, LEVEL, DRY SURFACE

WEIGHT ~ POUNDS	TAKE-OFF SPEED KNOTS ~ IAS	
	ROTATION	50 FT
9650	97	106
9500	96	105
9000	95	104
8500	94	103
8000	92	102

EXAMPLE:

OAT	25°C
PRESSURE ALTITUDE	3966 FT
TAKE - OFF WEIGHT	9650 LBS
HEADWIND COMPONENT	9.5 KTS
GROUND ROLL	2760 FT
TOTAL DISTANCE OVER A 50-FT OBSTACLE	7000 FT

NOTE:
1. DISTANCES ASSUME AN ENGINE FAILURE AT ROTATION SPEED AND PROPELLER IMMEDIATELY FEATHERED.
2. WEIGHTS IN SHADED AREA MAY NOT PROVIDE POSITIVE GEAR-DOWN,SINGLE-ENGINE CLIMB GRADIENT. REFER TO TAKE-OFF WEIGHT GRAPH FOR THE MAXIMUM WEIGHT AT WHICH THE ACCELERATE-GO PROCEDURE SHOULD BE ATTEMPTED.



CLIMB- TWO ENGINE -FLAPS 0%

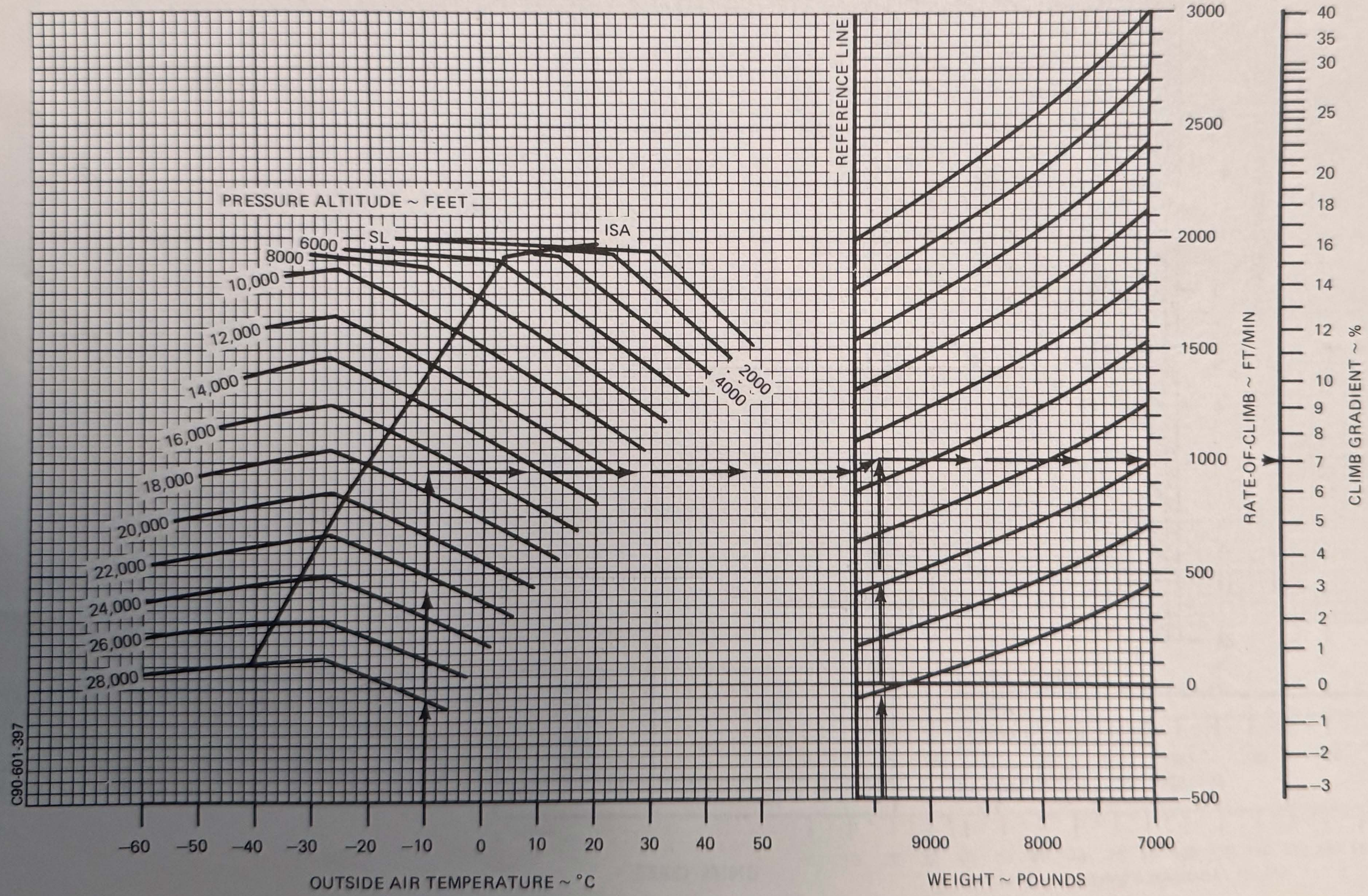
CLIMB SPEED-111 KNOTS (ALL WEIGHTS)

ASSOCIATED CONDITIONS:

POWER	MAXIMUM CONTINUOUS
FLAPS	UP (0%)
LANDING GEAR	UP
CLIMB SPEED	IAS AS TABULATED

EXAMPLE:

OAT	–10°C
PRESSURE ALTITUDE	17,000 FT
WEIGHT	9431 LBS
RATE-OF-CLIMB	1000 FT/MIN
CLIMB GRADIENT	7.0%



TAKE-OFF CLIMB GRADIENT — ONE ENGINE INOPERATIVE

ZERO WIND

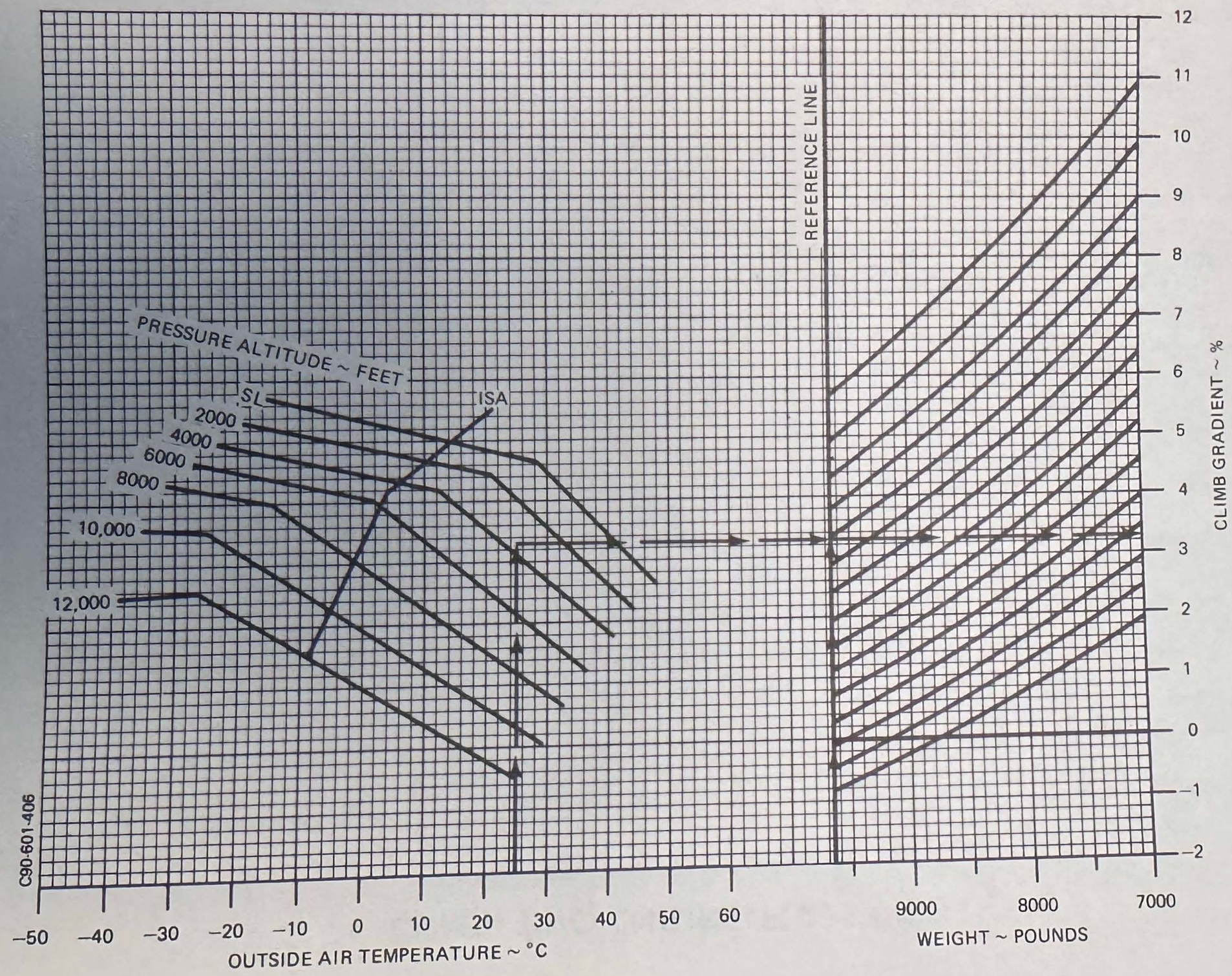
ASSOCIATED CONDITIONS:

POWER	TAKE-OFF
FLAPS	UP (0%)
LANDING GEAR	UP
INOPERATIVE PROPELLER	FEATHERED

WEIGHT ~ LBS	CLIMB SPEED KTS ~ IAS
9650	106
9500	105
9000	104
8500	103
8000	102

EXAMPLE:

OAT	25°C
PRESSURE ALTITUDE	3966 FT
WEIGHT	9650 LBS
CLIMB GRADIENT	3.22%



TIME, FUEL, AND DISTANCE TO CLIMB

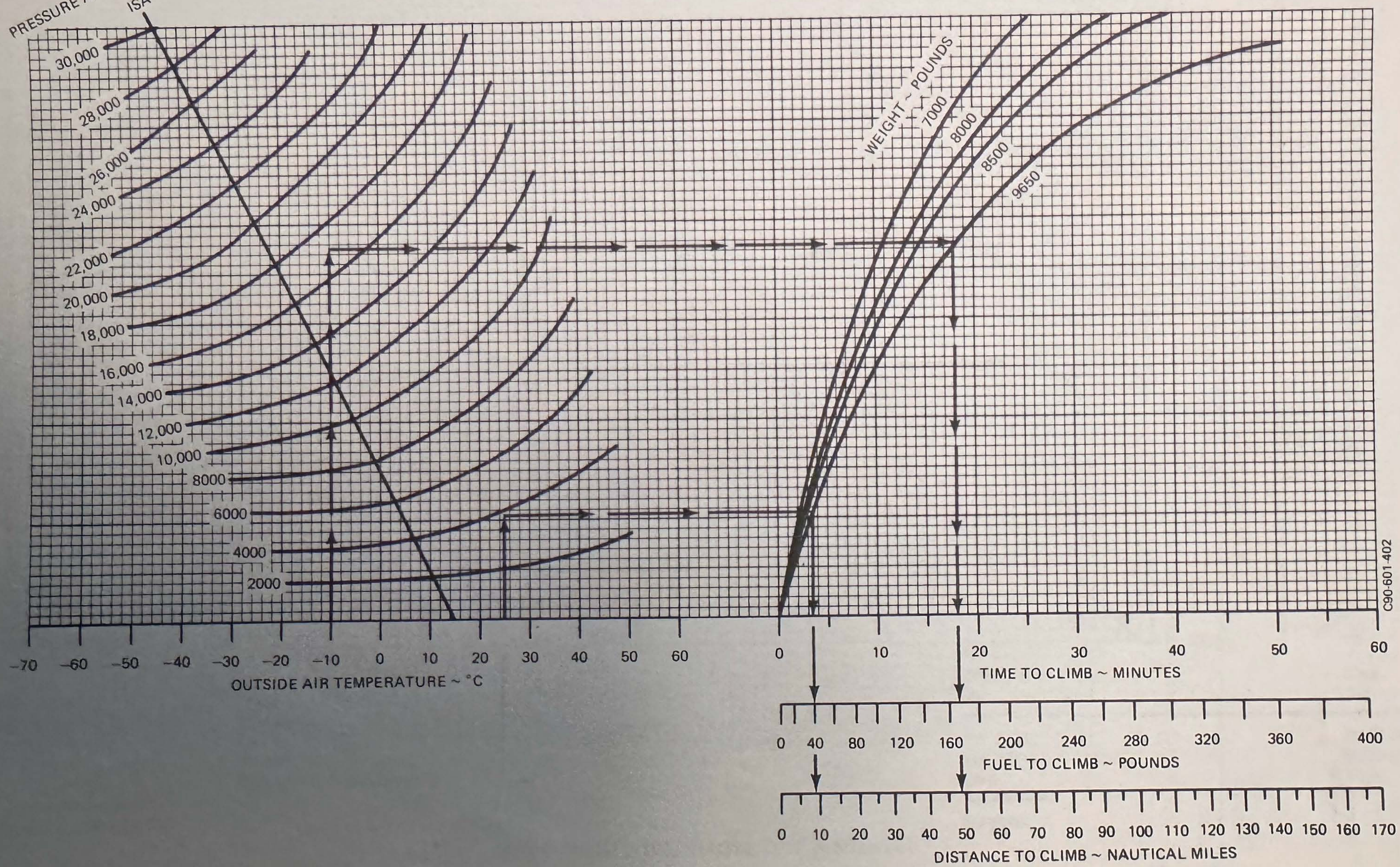
ASSOCIATED CONDITIONS:

PROPELLER SPEED	2000 RPM
TORQUE	1315 FT LBS
OR ITT	645°C

ALTITUDE ~ FT			CLIMB SPEED ~ KTS
SL	TO	10,000	150
10,000	TO	20,000	130
20,000	TO	25,000	120
25,000	TO	30,000	110

EXAMPLE:

TAKE-OFF OAT	25°C
PRESSURE ALTITUDE	3966 FT
CRUISE OAT	−10°C
PRESSURE ALTITUDE	17,000 FT
INITIAL WEIGHT	9650 LBS
TIME TO CLIMB	(18-4) = 14 MIN
FUEL TO CLIMB	(166-40) = 126 LBS
DISTANCE TO CLIMB	(48-8) = 40 NM



CLIMB — ONE ENGINE INOPERATIVE — FLAPS 0%

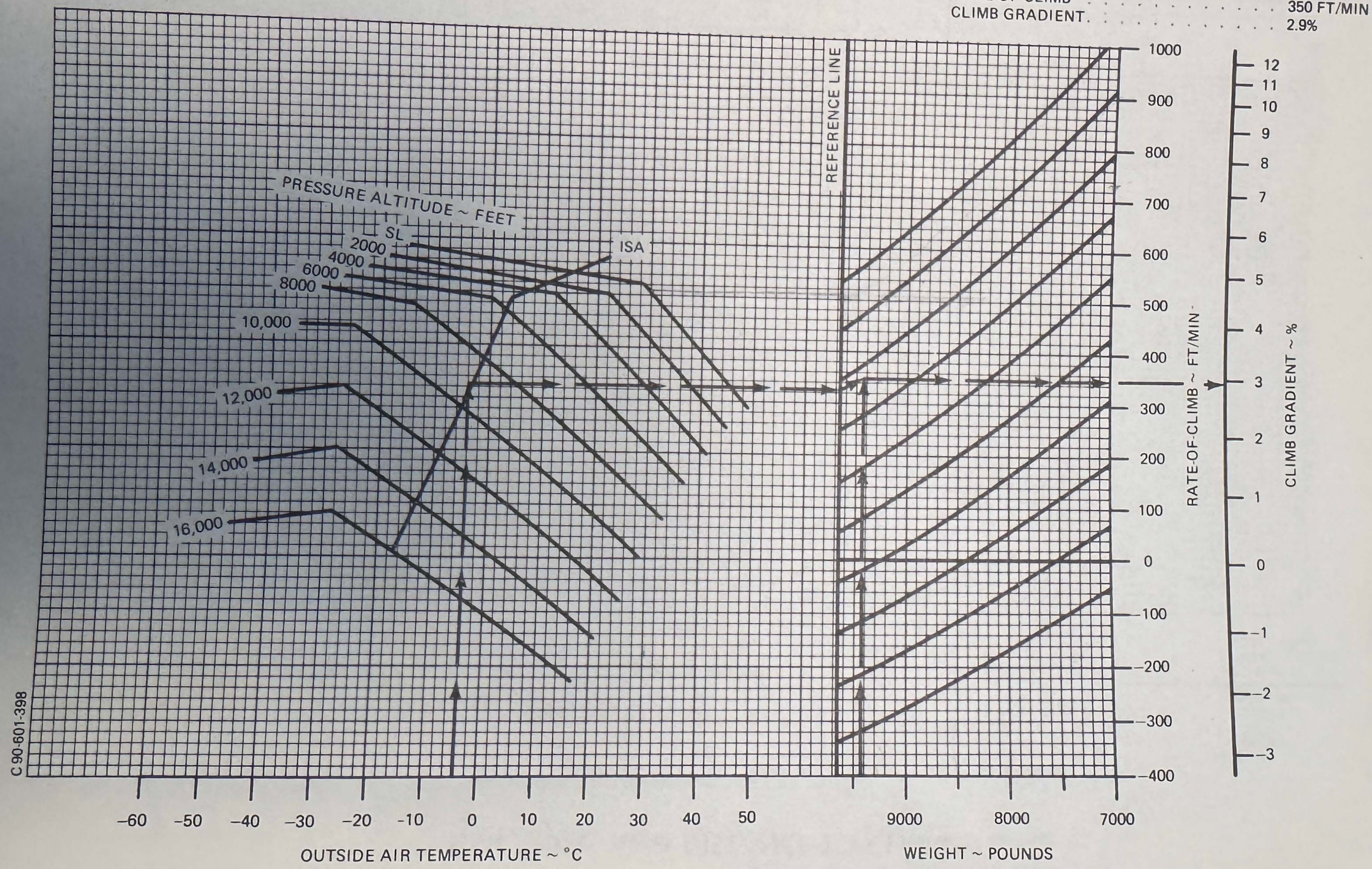
CLIMB SPEED - 107 KNOTS (ALL WEIGHTS)

ASSOCIATED CONDITIONS:

POWER	MAXIMUM CONTINUOUS
FLAPS	UP (0%)
LANDING GEAR	UP
INOPERATIVE PROPELLER	FEATHERED
CLIMB SPEED	IAS AS TABULATED

EXAMPLE:

OAT	–4°C
PRESSURE ALTITUDE	9000 FT
WEIGHT	9431 LBS
RATE-OF-CLIMB	350 FT/MIN
CLIMB GRADIENT	2.9%



SERVICE CEILING-ONE ENGINE INOPERATIVE

ASSOCIATED CONDITIONS:

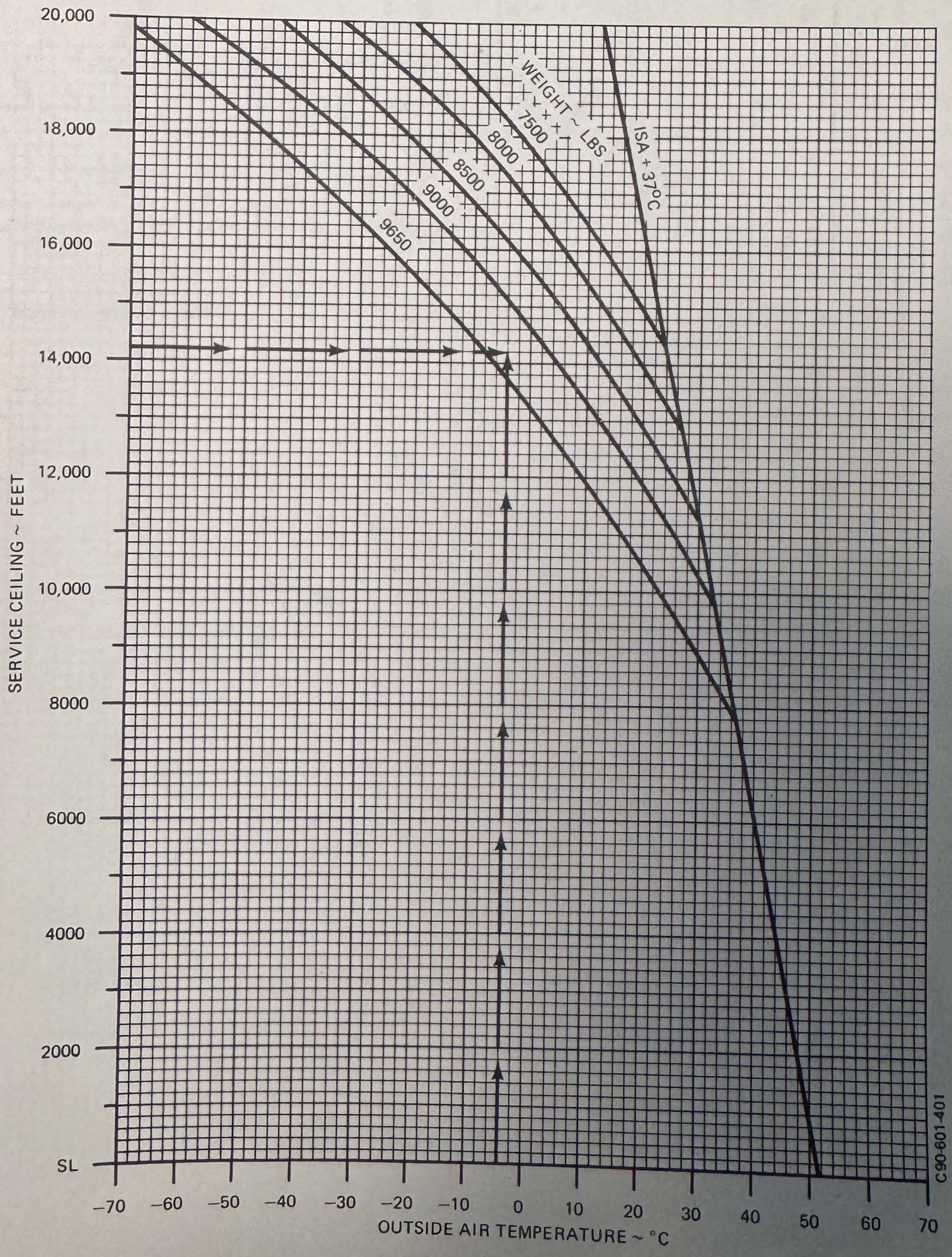
POWER	MAXIMUM CONTINUOUS
LANDING GEAR	UP
INOPERATIVE PROPELLER	FEATHERED
FLAPS	UP (0%)

NOTE:
SERVICE CEILING IS THE PRESSURE ALTITUDE WHERE THE AIRPLANE HAS CAPABILITY OF CLIMBING 50 FT/MINUTE WITH ONE PROPELLER FEATHERED.

EXAMPLE:

OAT AT MEA	–4°C
WEIGHT	9431 LBS
ROUTE SEGMENT MEA	9000 FT
SERVICE CEILING	14,200 FT

NOTE: SERVICE CEILING IS ABOVE ENROUTE MEA



BALKED LANDING CLIMB — FLAPS 100%

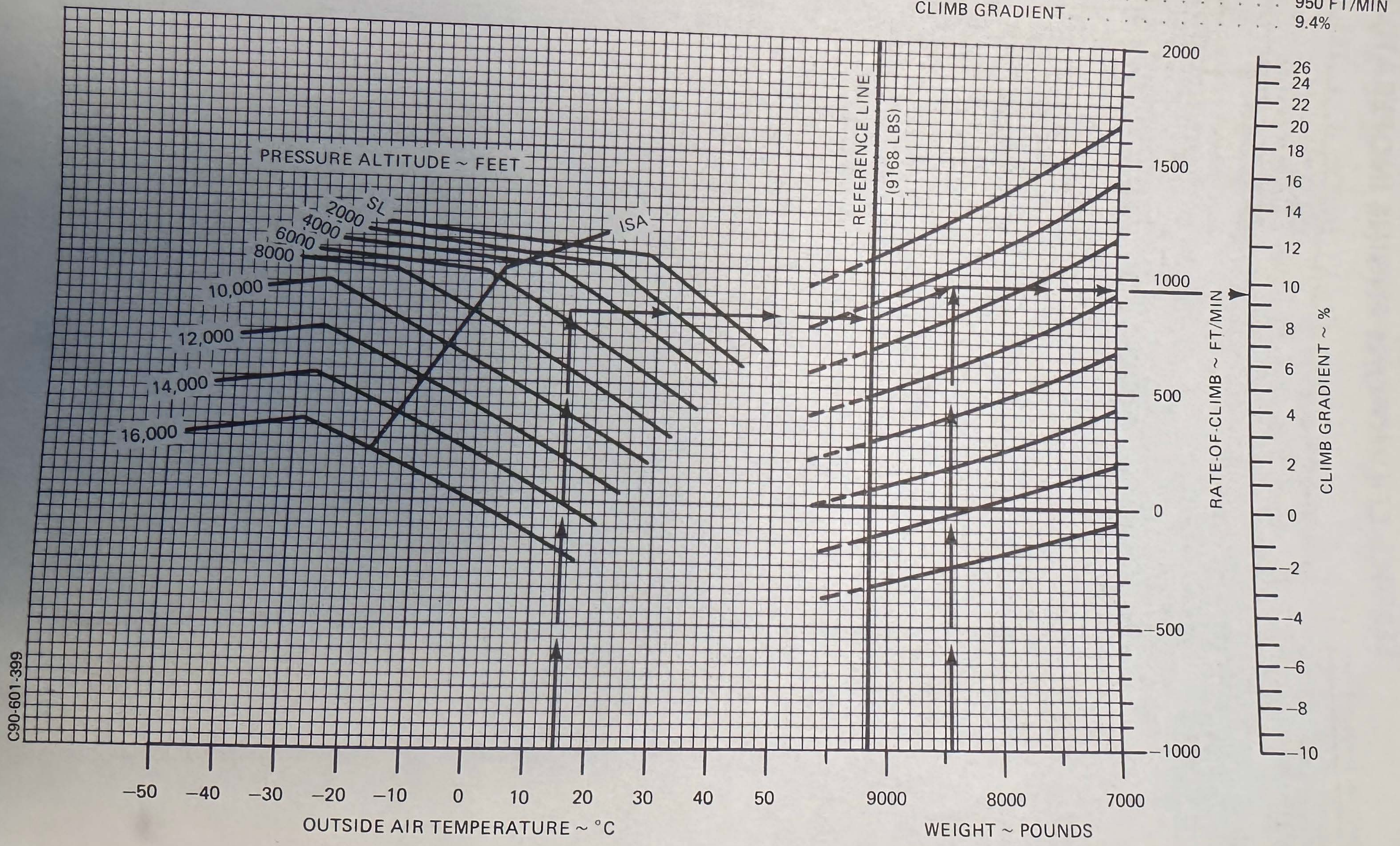
CLIMB SPEED-95 KNOTS (ALL WEIGHTS)

ASSOCIATED CONDITIONS:

POWER	TAKE-OFF
FLAPS	DOWN (100%)
LANDING GEAR	DOWN

EXAMPLE:

OAT	15°C
PRESSURE ALTITUDE	5651 FT
WEIGHT	8482 LBS
RATE-OF-CLIMB	950 FT/MIN
CLIMB GRADIENT	9.4%



MAXIMUM TWO ENGINE CRUISE POWER

ISA - 30°

1900 RPM

PRESSURE ALTITUDE FEET	IOAT		TORQUE PER ENGINE FT LBS	FUEL FLOW PER ENGINE LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS					
						9500 LBS		8500 LBS		7500 LBS	
	°C	°F				CAS	TAS	CAS	TAS	CAS	TAS
SL	-11	11	1180	305	610	208	197	208	197	208	197
2000	-15	5	1209	301	602	208	203	208	203	208	203
4000	-19	-2	1241	299	598	208	208	208	208	208	208
6000	-23	-9	1275	299	598	208	214	208	214	208	214
8000	-26	-15	1308	301	602	207	219	208	220	208	220
10000	-30	-22	1315	299	598	205	224	206	225	208	227
12000	-34	-29	1315	298	596	203	228	204	230	206	231
14000	-38	-36	1274	288	576	198	229	200	231	201	233
16000	-42	-43	1186	269	538	190	227	192	230	194	232
18000	-46	-51	1086	247	494	181	223	183	226	186	229
20000	-50	-58	982	224	448	171	218	174	221	177	225
22000	-54	-66	882	202	404	160	211	164	216	167	220
24000	-59	-73	790	183	366	149	202	154	209	158	214
26000	-63	-81	701	163	326	136	191	143	201	148	207
28000	-67	-89	619	146	292	118	173	130	190	137	199
29000	-71	-96	578	138	276	---	---	123	182	125	188

MAXIMUM TWO ENGINE CRUISE POWER

ISA - 20° 1900 RPM

PRESSURE ALTITUDE FEET	IOAT °C	IOAT °F	TORQUE PER ENGINE FT LBS	FUEL FLOW PER ENGINE LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS 9500 LBS CAS	9500 LBS TAS	8500 LBS CAS	8500 LBS TAS	7500 LBS CAS	7500 LBS TAS
SL	-1	30	1202	310	620	208	201	208	201	208	201
2000	-5	23	1232	306	612	208	206	208	206	208	206
4000	-9	16	1266	305	610	208	212	208	212	208	212
6000	-12	10	1300	306	612	208	218	208	219	208	219
8000	-16	3	1315	305	610	205	222	207	224	208	225
10000	-20	-4	1315	302	604	203	226	205	228	206	230
12000	-24	-11	1258	288	576	197	227	199	229	201	230
14000	-28	-18	1190	273	546	191	226	193	228	195	230
16000	-32	-25	1124	258	516	184	225	187	228	188	230
18000	-36	-33	1058	243	486	177	224	180	227	182	229
20000	-40	-40	993	229	458	170	222	173	225	176	228
22000	-44	-47	907	210	420	161	216	164	221	167	225
24000	-48	-55	819	190	380	150	209	155	215	158	220
26000	-53	-63	731	171	342	137	198	144	207	149	214
28000	-57	-70	648	153	306	121	182	132	197	138	206
29000	-59	-79	608	145	290	108	164	125	190	133	202

MAXIMUM TWO ENGINE CRUISE POWER

ISA - 10°

1900 RPM

PRESSURE ALTITUDE FEET	IOAT °C	IOAT °F	TORQUE PER ENGINE FT LBS	FUEL FLOW PER ENGINE LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS 9500 LBS CAS	9500 LBS TAS	8500 LBS CAS	8500 LBS TAS	7500 LBS CAS	7500 LBS TAS
SL	9	48	1223	316	632	208	204	208	204	208	204
2000	5	41	1256	313	626	208	210	208	210	208	210
4000	1	35	1290	311	622	208	216	208	216	208	216
6000	-2	28	1315	310	620	206	221	207	222	208	223
8000	-6	21	1305	304	608	203	224	205	226	206	227
10000	-10	14	1230	287	574	196	223	198	225	200	227
12000	-14	7	1166	272	544	190	223	192	225	194	227
14000	-18	-1	1104	257	514	184	222	186	225	188	227
16000	-22	-8	1043	243	486	177	221	179	224	182	226
18000	-26	-15	983	229	458	170	219	173	223	175	226
20000	-30	-22	927	217	434	163	217	167	222	169	225
22000	-34	-29	871	204	408	156	215	160	220	163	224
24000	-38	-37	815	191	382	148	210	153	217	156	222
26000	-42	-44	749	177	354	138	203	144	212	149	219
28000	-47	-52	672	160	320	123	188	133	203	139	212
29000	-49	-56	632	151	302	112	175	126	196	134	208

MAXIMUM TWO ENGINE CRUISE POWER

ISA

1900 RPM

PRESSURE ALTITUDE FEET	IOAT °C	IOAT °F	TORQUE PER ENGINE FT LBS	FUEL FLOW PER ENGINE LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS 9500 LBS CAS	9500 LBS TAS	8500 LBS CAS	8500 LBS TAS	7500 LBS CAS	7500 LBS TAS
SL	19	66	1245	322	644	208	208	208	208	208	208
2000	15	59	1279	319	638	208	214	208	214	208	214
4000	12	53	1308	316	632	206	218	208	220	208	220
6000	8	46	1266	303	606	201	220	203	222	204	223
8000	4	39	1212	288	576	196	220	198	222	199	224
10000	0	32	1151	272	544	190	220	192	222	193	224
12000	-4	24	1090	257	514	183	219	186	222	187	224
14000	-8	17	1023	243	486	176	217	179	220	181	223
16000	-12	10	963	229	458	169	215	172	219	175	222
18000	-16	3	909	216	432	162	214	166	218	169	222
20000	-20	-5	857	204	408	155	211	159	217	163	221
22000	-24	-12	805	192	384	148	208	153	214	156	219
24000	-28	-19	756	181	362	140	203	145	212	150	218
26000	-33	-27	707	170	340	130	197	138	208	143	215
28000	-37	-34	658	159	318	119	185	129	202	136	212
29000	-39	-38	633	153	306	109	173	124	198	132	209

MAXIMUM TWO ENGINE CRUISE POWER

ISA + 10°C

1900 RPM

PRESSURE ALTITUDE FEET	IOAT °C	IOAT °F	TORQUE PER ENGINE FT LBS	FUEL FLOW PER ENGINE LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS 9500 LBS CAS	9500 LBS TAS	8500 LBS CAS	8500 LBS TAS	7500 LBS CAS	7500 LBS TAS
SL	29	84	1236	323	646	205	208	206	210	208	211
2000	25	77	1213	311	622	201	210	203	212	204	214
4000	21	70	1186	298	596	197	213	199	214	200	216
6000	17	63	1154	286	572	193	214	195	216	196	218
8000	14	56	1112	272	544	188	215	190	217	192	219
10000	10	49	1060	258	516	182	215	184	218	186	220
12000	6	42	1006	243	486	176	214	178	217	181	220
14000	2	35	952	230	460	169	213	172	216	175	220
16000	-2	28	900	217	434	163	211	166	215	169	219
18000	-6	20	849	204	408	156	209	160	214	163	218
20000	-11	13	787	192	384	147	204	152	210	155	216
22000	-15	6	740	180	360	139	200	145	208	149	214
24000	-19	-2	695	170	340	130	193	138	204	143	212
26000	-23	-9	649	159	318	119	183	129	199	136	209
28000	-27	-17	605	149	298	---	---	120	191	128	205
29000	-29	-20	583	144	288	---	---	114	186	124	202

MAXIMUM TWO ENGINE CRUISE POWER

ISA + 20°C

1900 RPM

PRESSURE ALTITUDE FEET	IOAT		TORQUE PER ENGINE FT LBS	FUEL FLOW PER ENGINE LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS					
						9500 LBS		8500 LBS		7500 LBS	
	°C	°F				CAS	TAS	CAS	TAS	CAS	TAS
SL	39	102	1110	305	610	195	202	197	204	198	205
2000	35	95	1089	293	586	191	204	193	206	195	208
4000	31	88	1067	281	562	188	206	190	208	192	210
6000	27	81	1042	269	538	184	208	186	210	188	212
8000	23	74	1005	256	512	179	208	181	211	183	214
10000	19	67	959	242	484	173	208	176	211	178	214
12000	15	60	914	229	458	167	207	170	211	173	214
14000	11	52	870	217	434	161	206	164	211	167	214
16000	7	45	826	205	410	155	204	158	210	162	214
18000	3	38	780	193	386	147	202	152	208	156	213
20000	-1	31	736	181	362	140	198	145	206	150	212
22000	-5	23	691	170	340	131	192	138	202	143	210
24000	-9	16	639	159	318	119	181	129	196	136	205
26000	-13	8	592	149	298	---	---	119	188	128	201
28000	-18	0	550	139	278	---	---	107	175	120	195
29000	-21	-6	520	134	268	---	---	---	---	115	192

MAXIMUM TWO ENGINE CRUISE POWER

ISA + 30°C

1900 RPM

PRESSURE ALTITUDE FEET	IOAT		TORQUE PER ENGINE FT LBS	FUEL FLOW PER ENGINE LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS					
						9500 LBS		8500 LBS		7500 LBS	
	°C	°F				CAS	TAS	CAS	TAS	CAS	TAS
SL	49	119	986	288	576	185	194	187	196	189	198
2000	45	112	973	276	552	182	197	184	199	186	201
4000	41	106	956	265	530	178	199	181	201	183	204
6000	37	99	934	253	506	174	200	177	203	179	206
8000	33	91	901	241	482	169	201	172	204	175	207
10000	29	84	859	228	456	163	200	167	204	169	207
12000	25	77	819	215	430	157	199	161	203	164	207
14000	21	70	780	203	406	151	197	155	203	159	207
16000	17	63	742	192	384	145	195	150	201	153	207
18000	13	56	705	181	362	138	192	143	200	148	206
20000	9	48	669	171	342	130	187	137	197	142	205
22000	5	41	631	161	322	120	179	130	193	136	203
24000	1	33	592	151	302	99	154	121	187	129	199
26000	-4	26	552	141	282	---	---	110	176	121	194
28000	-9	16	501	131	262	---	---	---	---	112	186
29000	---	---	---	---	---	---	---	---	---	---	---

MAXIMUM TWO ENGINE CRUISE POWER

ISA + 37°C

1900 RPM

PRESSURE ALTITUDE FEET	IOAT °C	IOAT °F	TORQUE PER ENGINE FT LBS	FUEL FLOW PER ENGINE LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS 9500 LBS CAS	9500 LBS TAS	8500 LBS CAS	8500 LBS TAS	7500 LBS CAS	7500 LBS TAS
SL	55	132	904	276	552	177	188	180	191	182	193
2000	52	125	894	265	530	174	191	177	194	179	196
4000	48	118	881	255	510	171	193	174	196	176	199
6000	44	111	863	243	486	167	195	170	198	173	201
8000	40	104	832	231	462	162	195	166	199	168	202
10000	36	97	793	218	436	156	194	160	198	163	202
12000	32	89	755	206	412	150	192	154	197	158	202
14000	28	82	720	194	388	144	190	149	196	153	201
16000	24	75	685	184	368	137	187	143	195	147	201
18000	20	68	651	173	346	129	182	136	193	142	200
20000	16	60	618	163	326	120	175	130	190	136	198
22000	12	53	583	153	306	---	---	122	184	129	196
24000	7	45	548	144	288	---	---	112	175	123	192
26000	4	39	521	136	272	---	---	---	---	115	186
28000	---	---	---	---	---	---	---	---	---	---	---
29000	---	---	---	---	---	---	---	---	---	---	---

MAXIMUM RANGE POWER

ISA - 30°C 1900 RPM

PRESSURE ALTITUDE	I.O.A.T.		9500 POUNDS				8500 POUNDS				7500 POUNDS			
			TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS
FEET	°C	°F	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS
SL	-12	10	880	257.4	514.8	174	824	248.6	497.2	171	770	240.2	480.4	168
2000	-16	3	865	246.3	492.6	176	808	237.5	475.0	173	754	229.1	458.2	170
4000	-20	-4	835	233.5	467.0	176	777	224.5	449.0	173	721	215.8	431.6	170
6000	-24	-11	800	220.6	441.2	176	736	210.5	421.0	172	676	201.1	402.2	169
8000	-28	-18	775	209.9	419.8	176	706	198.9	397.8	172	641	188.5	377.0	168
10000	-32	-25	754	200.2	400.4	177	681	188.5	377.0	172	614	177.7	355.4	168
12000	-36	-33	736	191.8	383.6	178	660	179.4	358.8	173	589	167.8	335.6	168
14000	-40	-40	725	185.0	370.0	180	645	171.9	343.8	174	572	159.8	319.6	168
16000	-44	-47	716	179.1	358.2	181	634	165.4	330.8	175	556	152.4	304.8	169
18000	-48	-54	708	173.7	347.4	183	624	159.4	318.8	177	544	145.8	291.6	170
20000	-51	-61	698	168.6	337.2	185	616	154.3	308.6	179	534	140.1	280.2	172
22000	-55	-68	684	163.9	327.8	185	612	150.4	300.8	181	525	135.1	270.2	173
24000	-59	-75	678	161.0	322.0	186	612	148.0	296.0	183	524	132.0	264.0	175
26000	-63	-82	---	---	---	---	609	145.6	291.2	185	524	129.5	259.0	178
28000	-67	-89	---	---	---	---	---	---	---	---	527	128.1	256.2	181
29000	-69	-92	---	---	---	---	---	---	---	---	530	128.0	256.0	183

NOTE: Use Maximum Two Engine Cruise Power tables for altitude values which have been omitted.

MAXIMUM RANGE POWER

ISA - 20°C 1900 RPM

PRESSURE ALTITUDE	I.O.A.T.		9500 POUNDS				8500 POUNDS				7500 POUNDS			
			TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS
FEET	°C	°F	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS
SL	-2	28	846	253.8	507.6	173	787	244.3	488.6	170	736	235.9	471.8	167
2000	-6	21	836	243.3	486.6	175	783	234.8	469.6	173	730	226.2	452.4	170
4000	-10	14	827	234.0	468.0	178	780	226.3	452.6	176	723	217.4	434.8	172
6000	-14	7	812	224.4	448.8	179	767	217.0	434.0	178	711	208.3	416.6	174
8000	-18	0	792	214.3	428.6	180	743	206.4	412.8	178	685	197.3	394.6	175
10000	-22	-7	771	204.7	409.4	181	720	196.4	392.8	179	657	186.5	373.0	175
12000	-26	-14	750	195.8	391.6	182	699	187.3	374.6	180	632	176.6	353.2	175
14000	-30	-21	731	187.9	375.8	182	683	179.5	359.0	181	611	168.0	336.0	176
16000	-34	-29	713	180.4	360.8	183	668	172.2	344.4	182	595	160.4	320.8	177
18000	-38	-36	701	174.4	348.8	184	653	165.6	331.2	183	580	153.4	306.8	178
20000	-41	-43	693	169.7	339.4	186	640	159.8	319.6	184	571	147.9	295.8	180
22000	-45	-50	698	168.0	336.0	189	623	153.9	307.8	184	564	143.1	286.2	182
24000	-49	-57	701	166.7	333.4	192	610	149.0	298.0	185	558	139.0	278.0	183
26000	-53	-64	701	165.3	330.6	194	616	148.2	296.4	188	547	134.6	269.2	184
28000	-57	-71	---	---	---	---	---	---	---	---	537	131.1	262.2	185
29000	-59	-74	---	---	---	---	---	---	---	---	536	130.0	260.0	186

NOTE: Use Maximum Two Engine Cruise Power tables for altitude values which have been omitted.

MAXIMUM RANGE POWER

ISA - 10°C 1900 RPM

PRESSURE ALTITUDE	I.O.A.T.		9500 POUNDS				8500 POUNDS				7500 POUNDS			
			TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS
FEET	°C	°F	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS
SL	8	46	872	260.2	520.4	177	803	249.2	498.4	173	729	237.5	475.0	169
2000	4	39	847	247.3	494.6	178	771	235.2	470.4	173	700	224.1	448.2	169
4000	0	32	818	234.2	468.4	179	750	223.4	446.8	175	690	213.9	427.8	171
6000	-4	25	793	222.7	445.4	179	737	213.7	427.4	177	687	205.5	411.0	174
8000	-8	18	773	213.0	426.0	180	724	205.0	410.0	178	679	197.5	395.0	176
10000	-12	11	756	204.6	409.2	181	703	195.8	391.6	179	663	189.1	378.2	178
12000	-16	4	740	196.3	392.6	182	681	186.5	373.0	180	644	180.2	360.4	179
14000	-20	-4	730	189.6	379.2	184	661	178.0	356.0	180	624	171.6	343.2	180
16000	-24	-11	728	184.6	369.2	187	646	170.6	341.2	181	607	163.8	327.6	181
18000	-28	-18	728	180.6	361.2	190	637	164.8	329.6	183	590	156.4	312.8	181
20000	-31	-25	718	175.7	351.4	191	637	161.0	322.0	186	575	149.9	299.8	182
22000	-35	-32	708	171.2	342.4	192	640	158.2	316.4	189	561	144.1	288.2	183
24000	-39	-38	711	170.1	340.2	195	637	155.3	310.6	191	551	139.4	278.8	184
26000	-43	-46	710	168.8	337.6	197	629	152.1	304.2	192	550	136.7	273.4	187
28000	-47	-52	---	---	---	---	633	151.7	303.4	195	556	136.0	272.0	191
29000	-49	-56	---	---	---	---	---	---	---	---	554	135.0	270.0	191

NOTE: Use Maximum Two Engine Cruise Power tables for altitude values which have been omitted.

MAXIMUM RANGE POWER

ISA 1900 RPM

PRESSURE ALTITUDE	I.O.A.T.		9500 POUNDS				8500 POUNDS				7500 POUNDS			
			TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS
FEET	°C	°F	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS
SL	18	64	852	259.6	519.2	178	795	250.1	500.2	175	741	241.0	482.0	172
2000	14	57	846	249.5	499.0	180	786	239.8	479.6	177	728	230.4	460.8	174
4000	10	50	838	239.3	478.6	182	772	228.9	457.8	179	702	217.9	435.8	174
6000	6	43	825	229.3	458.6	184	756	218.5	437.0	180	681	206.6	413.2	175
8000	2	36	805	219.2	438.4	186	735	208.0	416.0	181	661	196.4	392.8	176
10000	-2	29	785	209.7	419.4	187	714	198.3	396.6	182	644	186.9	373.8	177
12000	-6	22	765	200.9	401.8	187	698	189.8	379.6	184	628	178.3	356.6	179
14000	-10	15	749	194.2	388.4	189	689	183.8	367.6	186	614	171.5	343.0	180
16000	-13	8	734	187.6	375.2	189	677	177.4	354.8	187	601	164.6	329.2	182
18000	-17	1	729	182.5	365.0	192	663	170.6	341.2	188	587	157.6	315.2	183
20000	-21	-6	734	179.9	359.8	195	653	165.2	330.4	190	577	151.8	303.6	184
22000	-25	-13	721	175.4	350.8	196	644	160.6	321.2	191	573	147.5	295.0	187
24000	-29	-20	712	171.9	343.8	197	642	157.7	315.4	194	571	144.1	288.2	189
26000	-33	-27	---	---	---	---	640	155.6	311.2	196	562	140.1	280.2	191
28000	-37	-34	---	---	---	---	635	153.7	307.4	197	560	137.9	275.8	193
29000	-39	-38	---	---	---	---	---	---	---	---	562	138.0	276.0	195

NOTE: Use Maximum Two Engine Cruise Power tables for altitude values which have been omitted.

MAXIMUM RANGE POWER

ISA + 10°C 1900 RPM

PRESSURE ALTITUDE	I.O.A.T.		9500 POUNDS				8500 POUNDS				7500 POUNDS			
			TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS
FEET	°C	°F	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS
SL	28	82	865	263.9	527.8	180	786	251.2	502.4	176	719	240.3	480.6	171
2000	24	75	841	251.0	502.0	181	767	239.1	478.2	177	707	229.2	458.4	173
4000	20	68	821	239.1	478.2	183	757	228.9	457.8	179	699	219.4	438.8	176
6000	16	61	801	228.2	456.4	184	749	219.6	439.2	182	690	210.1	420.2	178
8000	12	54	784	218.3	436.6	185	737	210.4	420.8	184	680	201.1	402.2	180
10000	8	47	765	208.6	417.2	186	720	200.8	401.6	185	669	192.4	384.8	182
12000	4	40	750	200.3	400.6	187	699	191.6	383.2	186	653	183.6	367.2	184
14000	0	33	750	195.2	390.4	190	681	183.4	366.8	186	636	175.5	351.0	185
16000	-3	26	753	190.9	381.8	194	667	176.2	352.4	188	619	167.7	335.4	186
18000	-7	19	747	185.8	371.6	196	661	170.7	341.4	190	603	160.5	321.0	187
20000	-11	12	728	180.8	361.6	196	668	169.4	338.8	194	587	155.0	310.0	188
22000	-15	5	---	---	---	---	657	164.4	328.8	195	578	149.8	299.6	189
24000	-19	-2	---	---	---	---	642	159.3	318.6	195	580	147.0	294.0	193
26000	-23	-9	---	---	---	---	---	---	---	---	575	143.8	287.6	195
28000	-27	-16	---	---	---	---	---	---	---	---	563	140.0	280.0	195
29000	-29	-20	---	---	---	---	---	---	---	---	561	139.0	278.0	196

NOTE: Use Maximum Two Engine Cruise Power tables for altitude values which have been omitted.

MAXIMUM RANGE POWER

ISA + 20°C 1900 RPM

PRESSURE ALTITUDE	I.O.A.T.		9500 POUNDS				8500 POUNDS				7500 POUNDS			
			TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS
FEET	°C	°F	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS
SL	38	100	851	264.2	528.4	181	788	253.5	507.0	178	726	243.0	486.0	174
2000	34	93	849	254.5	509.0	184	781	243.4	486.8	180	709	231.4	462.8	175
4000	30	86	841	244.5	489.0	186	769	232.7	465.4	182	688	219.7	439.4	176
6000	26	79	827	234.1	468.2	188	752	222.0	444.0	184	674	209.5	419.0	178
8000	22	72	809	224.1	448.2	190	736	212.3	424.6	185	664	200.7	401.4	180
10000	18	65	791	214.7	429.4	191	718	202.6	405.2	186	652	191.8	383.6	182
12000	15	58	776	206.4	412.8	192	703	194.0	388.0	188	632	182.5	365.0	183
14000	11	51	765	199.4	398.8	194	693	187.0	374.0	190	615	174.1	348.2	184
16000	7	44	757	193.3	386.6	196	685	180.6	361.2	192	602	166.6	333.2	185
18000	3	37	755	188.8	377.6	199	678	175.0	350.0	194	593	160.2	320.4	187
20000	-1	30	---	---	---	---	669	169.7	339.4	196	593	156.0	312.0	191
22000	-5	23	---	---	---	---	663	165.4	330.8	198	594	152.6	305.2	194
24000	-9	16	---	---	---	---	---	---	---	---	584	148.8	297.6	195
26000	-13	9	---	---	---	---	---	---	---	---	576	145.5	291.0	196
28000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29000	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTE: Use Maximum Two Engine Cruise Power tables for altitude values which have been omitted.

MAXIMUM RANGE POWER

ISA + 30°C 1900 RPM

PRESSURE ALTITUDE	I.O.A.T.		9500 POUNDS				8500 POUNDS				7500 POUNDS			
			TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS
FEET	°C	°F	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS
SL	48	118	855	267.0	534.0	183	777	254.1	508.2	178	717	243.8	487.6	175
2000	44	111	839	255.1	510.2	185	767	243.5	487.0	181	707	233.2	466.4	177
4000	40	104	827	244.5	489.0	187	759	233.3	466.6	183	694	222.5	445.0	179
6000	36	97	815	234.6	469.2	189	754	224.5	449.0	186	689	213.7	427.4	182
8000	32	90	801	225.1	450.2	190	742	215.2	430.4	188	680	205.0	410.0	184
10000	29	83	786	215.9	431.8	192	724	205.5	411.0	189	668	196.0	392.0	186
12000	25	76	778	208.7	417.4	194	709	196.9	393.8	190	656	187.8	375.6	188
14000	21	69	---	---	---	---	695	189.1	378.2	192	640	179.6	359.2	189
16000	17	62	---	---	---	---	684	182.2	364.4	193	624	171.8	343.6	191
18000	13	55	---	---	---	---	687	178.1	356.2	197	610	164.6	329.2	192
20000	9	48	----	----	----	----	----	----	----	----	601	158.9	317.8	194
22000	5	41	---	---	---	---	---	---	---	---	596	154.2	308.4	196
24000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29000	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTE: Use Maximum Two Engine Cruise Power tables for altitude values which have been omitted.

MAXIMUM RANGE POWER

ISA + 37°C 1900 RPM

PRESSURE ALTITUDE	I.O.A.T.		9500 POUNDS				8500 POUNDS				7500 POUNDS			
			TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS	TORQUE PER ENG	FUEL FLOW PER ENG	FUEL FLOW TOTAL	TAS
FEET	°C	°F	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS	FT LB	LB/HR	LB/HR	KNOTS
SL	55	131	858	268.8	537.6	184	789	257.1	514.2	180	728	246.7	493.4	177
2000	51	124	850	258.3	516.6	187	773	245.5	491.0	182	704	233.9	467.8	178
4000	47	117	836	247.4	494.8	189	757	234.4	468.8	184	685	222.5	445.0	179
6000	43	110	824	237.3	474.6	191	743	224.1	448.2	186	674	212.7	425.4	181
8000	39	103	---	---	---	---	733	215.2	430.4	188	668	204.4	408.8	184
10000	36	96	---	---	---	---	724	206.7	413.4	190	658	195.8	391.6	186
12000	32	89	---	---	---	---	713	198.9	397.8	192	645	187.4	374.8	188
14000	28	82	---	---	---	---	---	---	---	---	631	179.5	359.0	189
16000	24	75	---	---	---	---	---	---	---	---	620	172.3	344.6	191
18000	20	68	---	---	---	---	---	---	---	---	610	165.8	331.6	193
20000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28000	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29000	---	---	---	---	---	---	---	---	---	---	---	---	---	---

NOTE: Use Maximum Two Engine Cruise Power tables for altitude values which have been omitted.

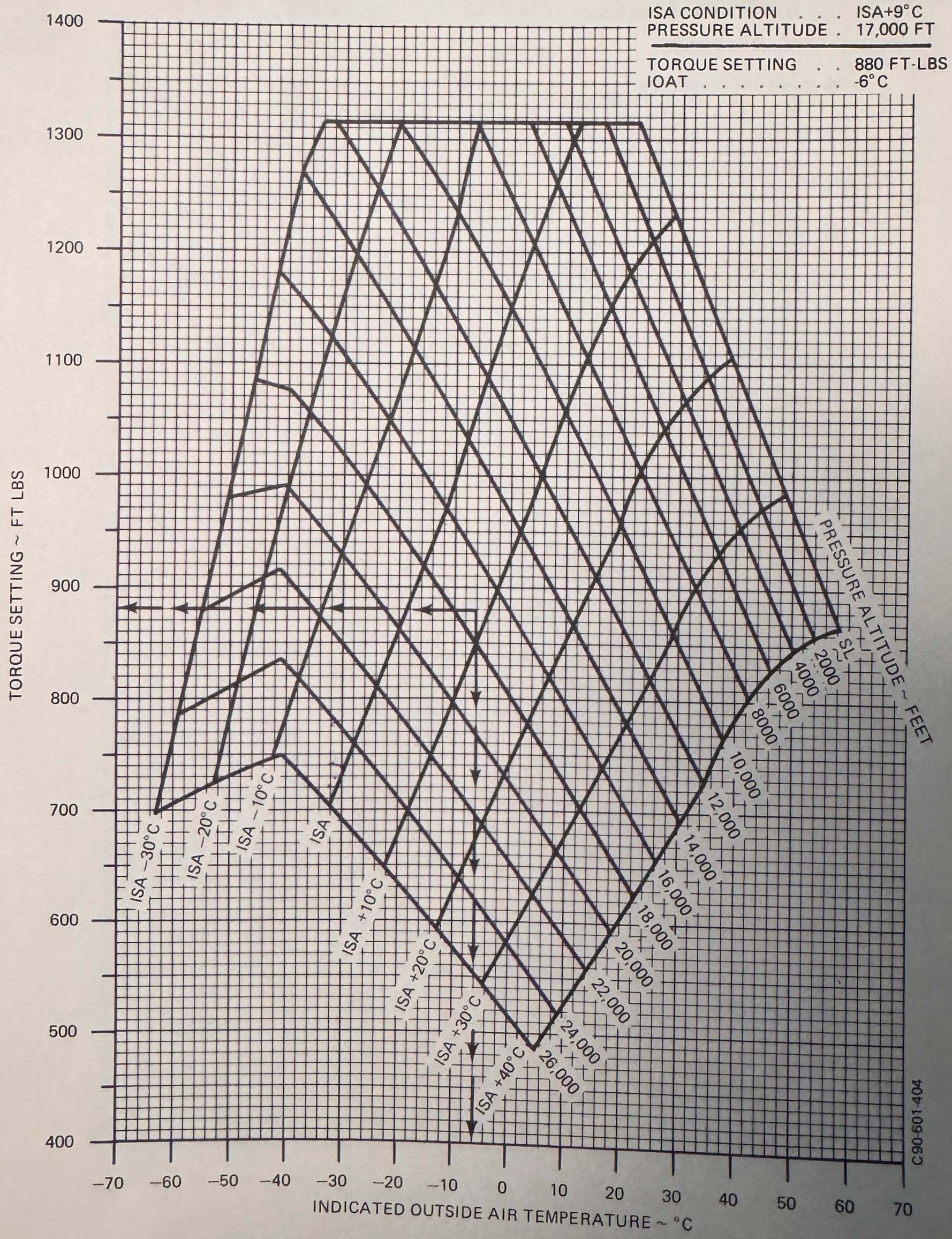
MAXIMUM CRUISE POWER

WEIGHT-9000 LBS

EXAMPLE:

ISA CONDITION . . . ISA+9°C
PRESSURE ALTITUDE . 17,000 FT

TORQUE SETTING . . 880 FT-LBS
IOAT . . . . . -6°C



FUEL FLOW AT MAXIMUM CRUISE POWER

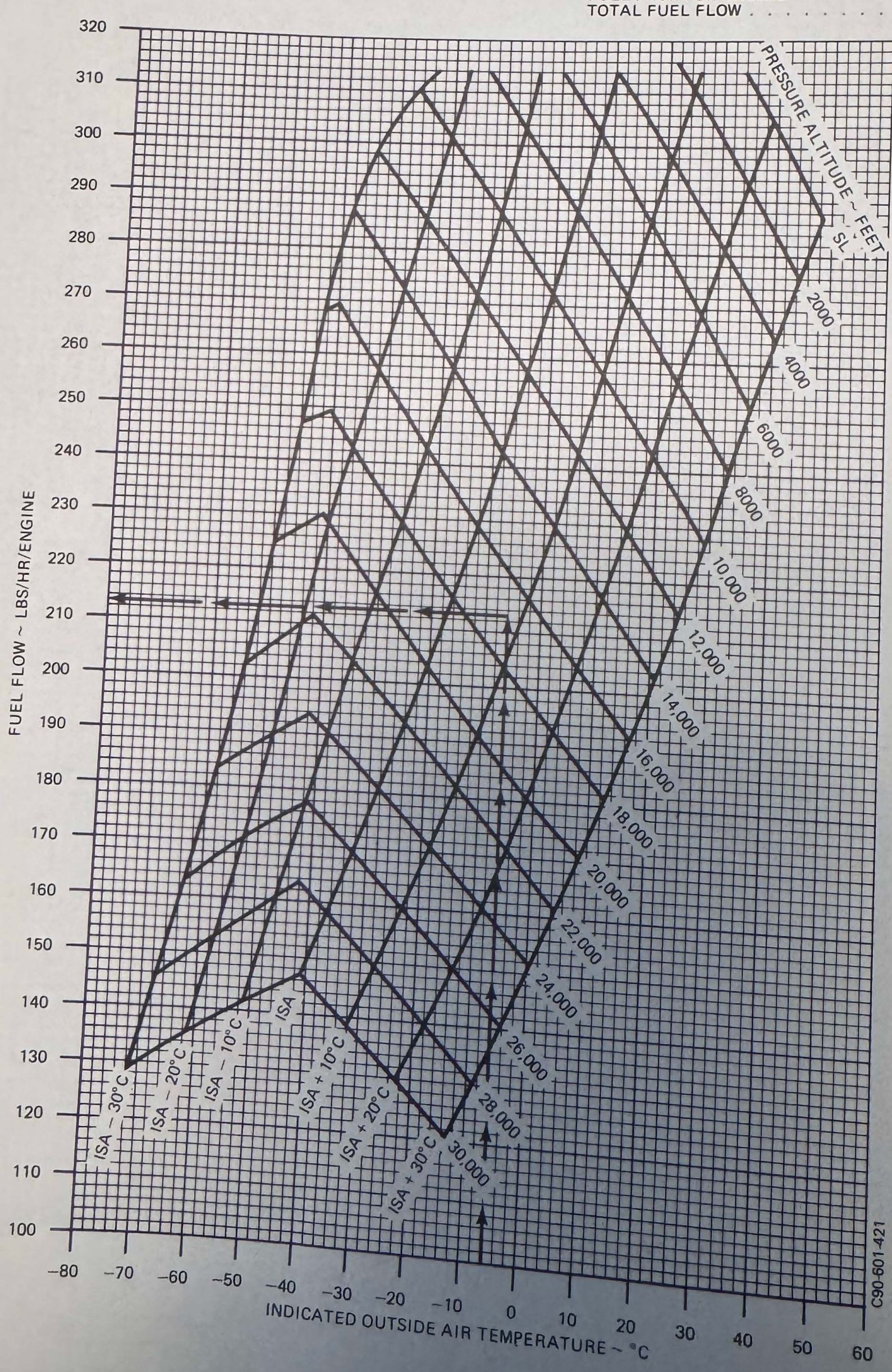
ASSOCIATED CONDITIONS:

PROPELLER SPEED . . . . . 1900 RPM
POWER . . . . . MAXIMUM CRUISE POWER

EXAMPLE:

PRESSURE ALTITUDE . . . . . 17,000 FT
INDICATED OAT . . . . . –6°C

FUEL FLOW PER ENGINE . . . . . 213 LBS/HR
TOTAL FUEL FLOW . . . . . 426 LBS/HR



CRUISE SPEEDS AT MAXIMUM CRUISE POWER

WEIGHT-8500 LBS

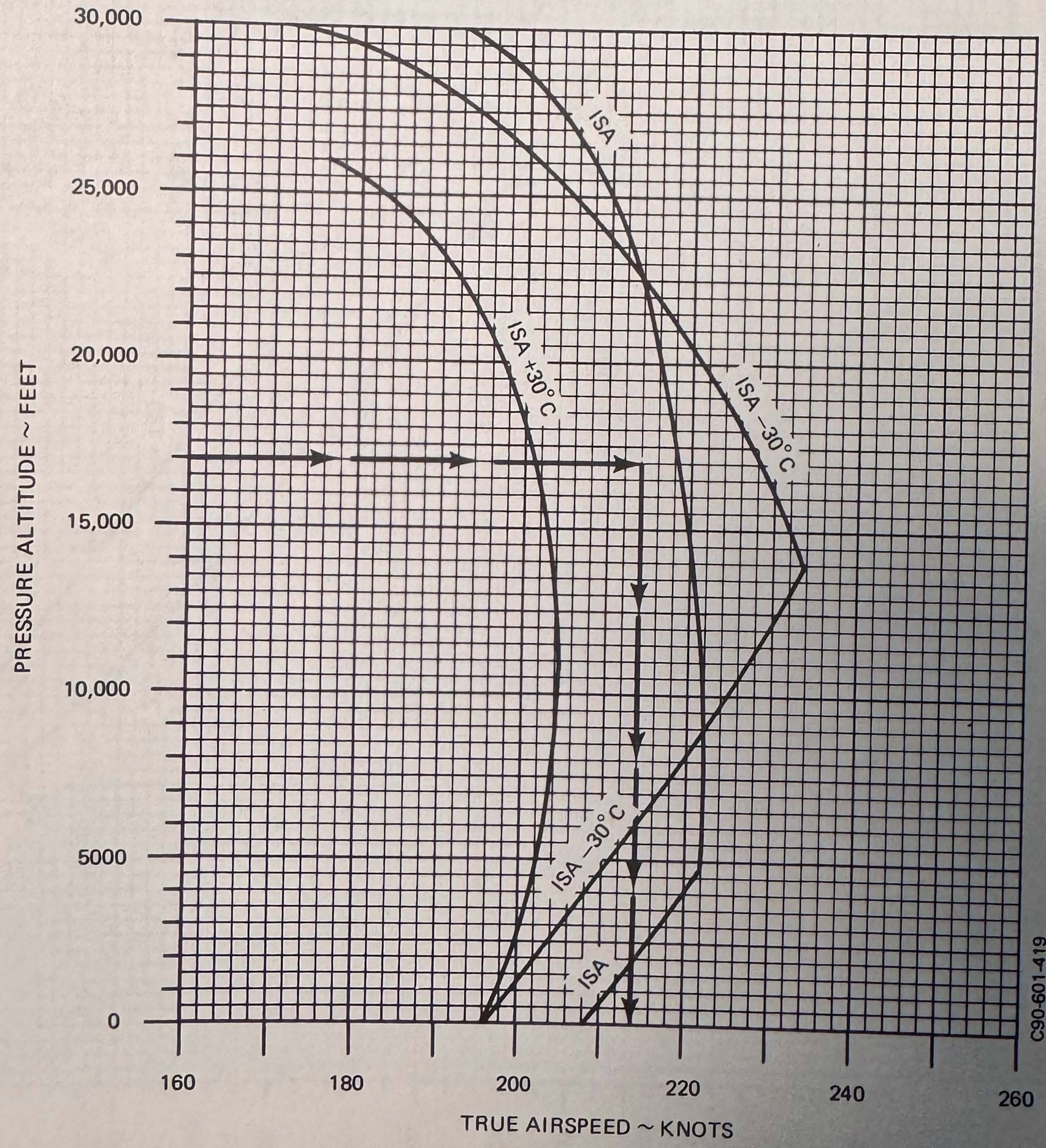
SSOCIATED CONDITIONS:

ROPELLER SPEED . . . . . 1900 RPM
OWER SETTING . . . . . MAXIMUM CRUISE POWER

EXAMPLE:

PRESSURE ALTITUDE . . . . . 17,000 FT
OAT . . . . . ISA + 9°C

TRUE AIRSPEED . . . . . 214 KTS



RANGE PROFILE-384 GALLONS

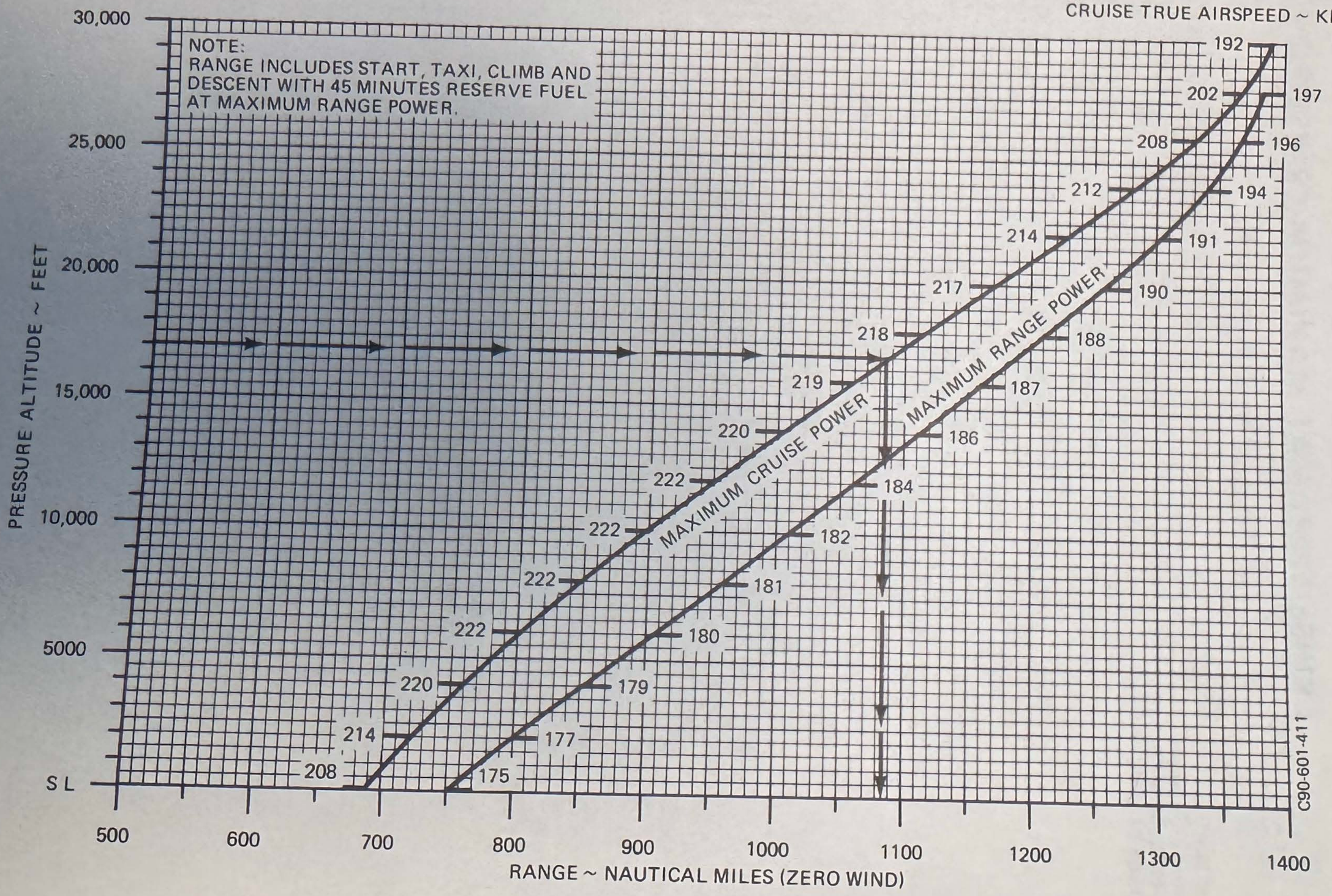
STANDARD DAY

ASSOCIATED CONDITIONS:

WEIGHT	9705 LBS BEFORE ENGINE START
FUEL	AVIATION KEROSENE
FUEL DENSITY	6.7 LBS/GAL
INITIAL FUEL LOADING	384 U.S. GAL (2573 LBS)
PROPELLER SPEED	1900 RPM

EXAMPLE:

PRESSURE ALTITUDE	17,000 FT
POWER SETTING	MAXIMUM CRUISE POWER
RANGE	1085 NM



RANGE PROFILE-224 GALLONS

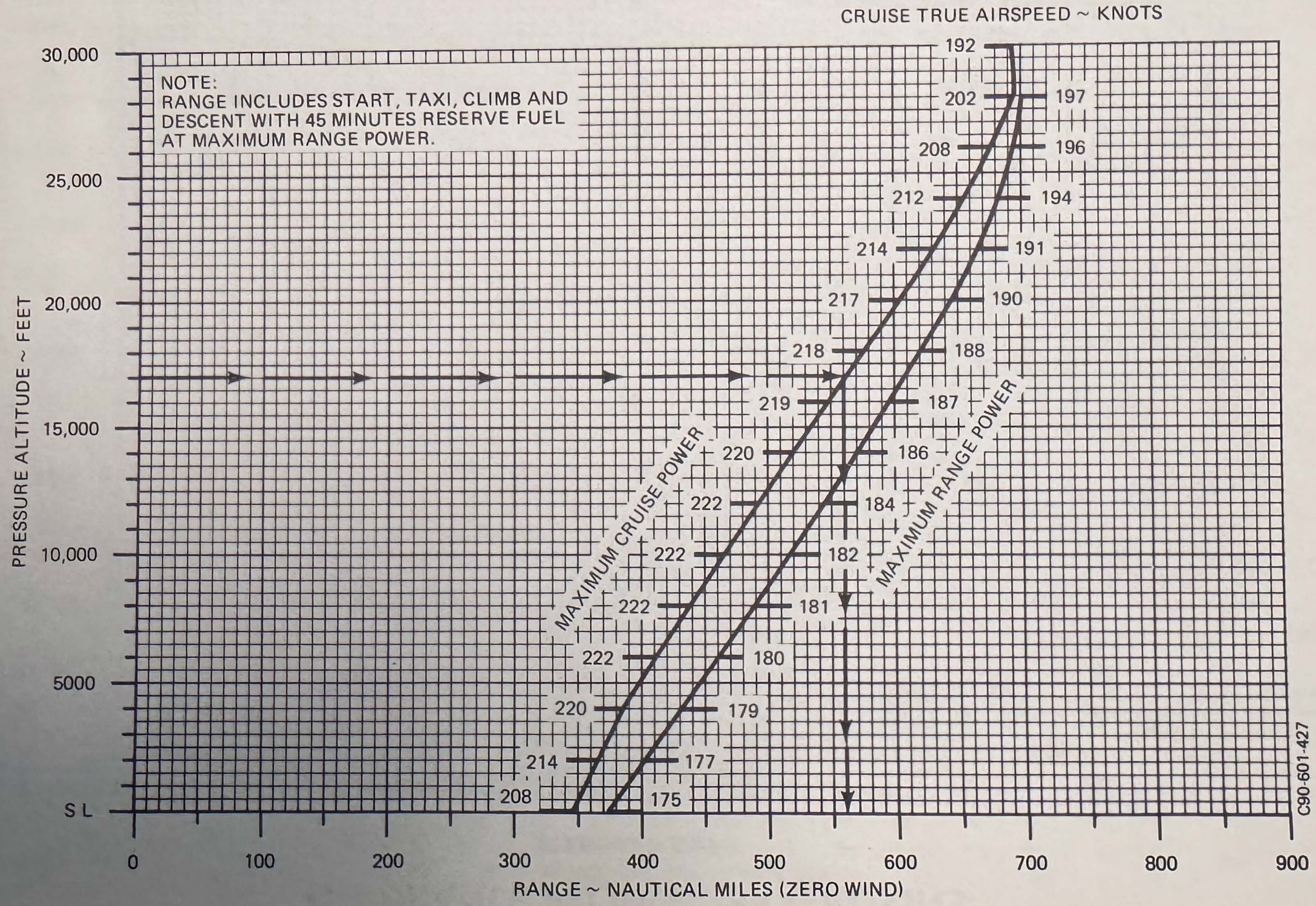
STANDARD DAY

ASSOCIATED CONDITIONS:

WEIGHT	9705 LBS BEFORE ENGINE START
FUEL	AVIATION KEROSENE
FUEL DENSITY	6.7 LBS/GAL
INITIAL FUEL LOADING	224 U.S. GAL (1500 LBS)
PROPELLER SPEED	1900 RPM

EXAMPLE:

PRESSURE ALTITUDE	17,000 FT
POWER SETTING	MAXIMUM CRUISE POWER
RANGE	560 NM



ENDURANCE PROFILE-384 GALLONS

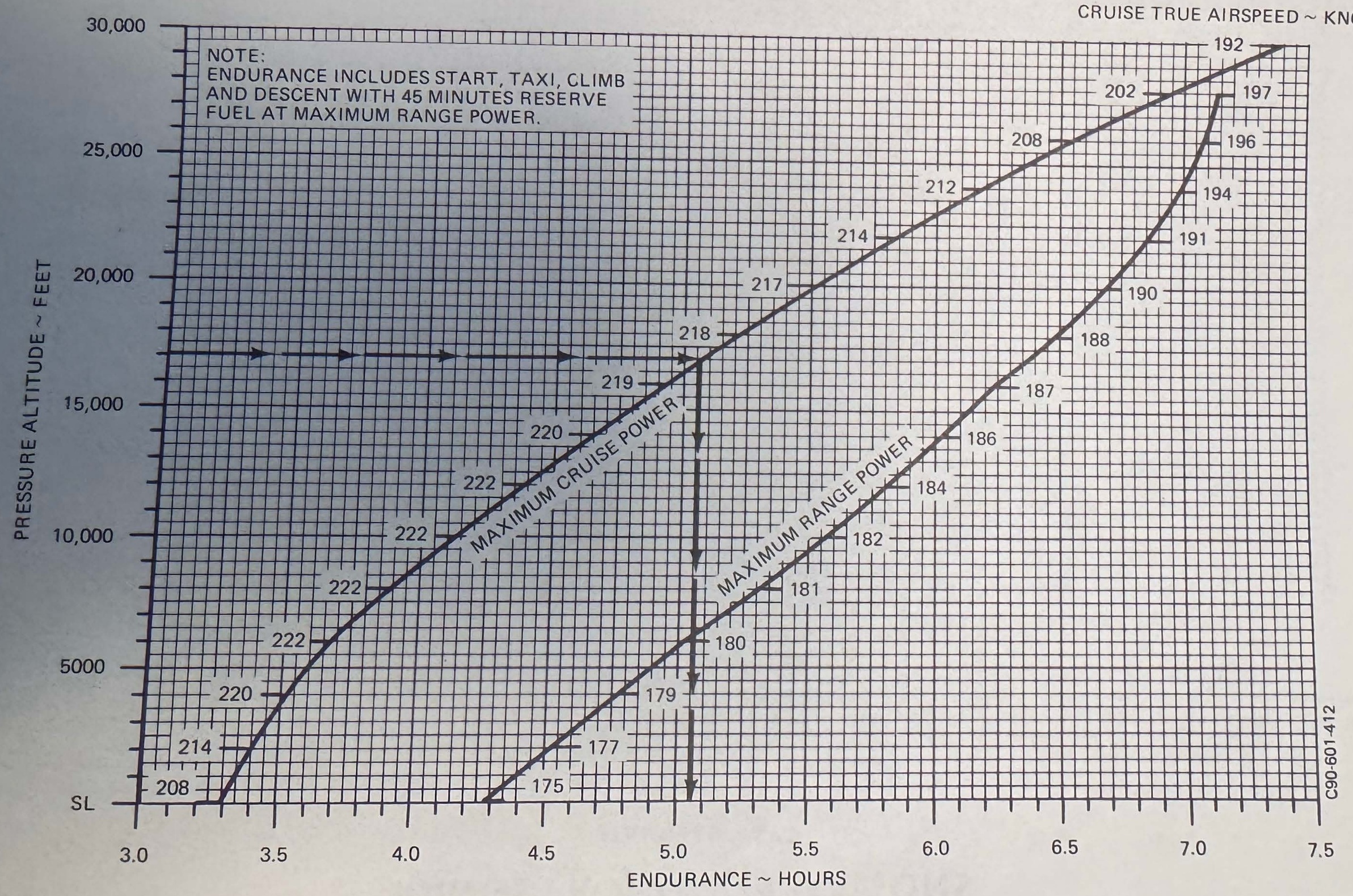
STANDARD DAY

ASSOCIATED CONDITIONS:

WEIGHT	9705 LBS BEFORE ENGINE START
FUEL	AVIATION KEROSENE
FUEL DENSITY	6.7 LBS/GAL
INITIAL FUEL LOADING	384 U.S. GAL (2573 LBS)
PROPELLER SPEED	1900 RPM

EXAMPLE:

PRESSURE ALTITUDE	17,000 FT
POWER SETTING	MAXIMUM CRUISE POWER
ENDURANCE	5.06 HRS (5 HRS 4 MIN)



ENDURANCE PROFILE-224 GALLONS

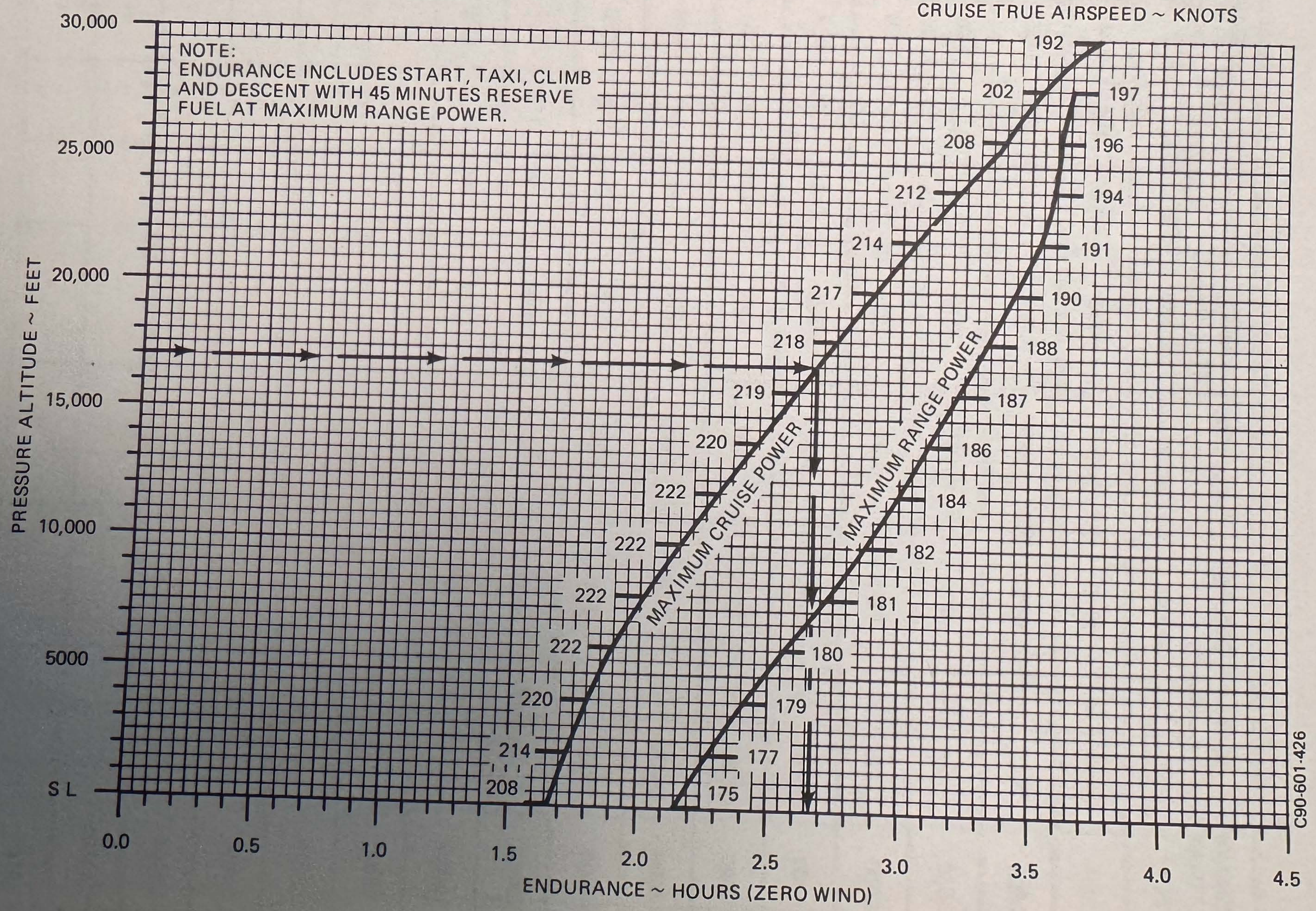
STANDARD DAY

ASSOCIATED CONDITIONS:

WEIGHT	9705 LBS BEFORE ENGINE START
FUEL	AVIATION KEROSENE
FUEL DENSITY	6.7 LBS/GAL
INITIAL FUEL LOADING	224 U.S. GALS (1500 LBS)
PROPELLER SPEED	1900 RPM

EXAMPLE:

PRESSURE ALTITUDE	17,000 FT
POWER SETTING	MAXIMUM CRUISE POWER
ENDURANCE	2.66 HRS 2 HRS, 40 MIN



MAXIMUM RECOMMENDED CRUISE POWER
ONE ENGINE INOPERATIVE

ISA - 30°C

1900 RPM

PRESSURE ALTITUDE FEET	IOAT °C	IOAT °F	TORQUE FT LBS	FUEL FLOW LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS 9500 LBS CAS	9500 LBS TAS	8500 LBS CAS	8500 LBS TAS	7500 LBS CAS	7500 LBS TAS
SL	-13	9	1315	333	333	158	150	161	153	164	155
2000	-17	1	1315	326	326	156	152	159	155	162	158
4000	-21	-6	1315	319	319	154	154	157	158	160	161
6000	-25	-13	1315	313	313	151	156	155	160	158	163
8000	-28	-18	1315	308	308	149	158	153	163	156	166
10000	-32	-26	1315	305	305	147	160	151	165	154	169
12000	-36	-33	1296	299	299	142	161	148	166	152	171
14000	-40	-40	1210	279	279	133	155	140	163	145	169
16000	-44	-47	1109	257	257	120	145	131	157	137	165
18000	-49	-56	994	232	232	---	---	118	146	127	158
20000	---	---	---	---	---	---	---	---	---	---	---
22000	---	---	---	---	---	---	---	---	---	---	---
24000	---	---	---	---	---	---	---	---	---	---	---
26000	---	---	---	---	---	---	---	---	---	---	---
28000	---	---	---	---	---	---	---	---	---	---	---
29000	---	---	---	---	---	---	---	---	---	---	---

Estimated Cruise Performance

MAXIMUM RECOMMENDED CRUISE POWER
ONE ENGINE INOPERATIVE

ISA - 20°C

1900 RPM

PRESSURE ALTITUDE FEET	IOAT °C	IOAT °F	TORQUE FT LBS	FUEL FLOW LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS 9500 LBS CAS	9500 LBS TAS	8500 LBS CAS	8500 LBS TAS	7500 LBS CAS	7500 LBS TAS
SL	-3	27	1315	334	334	156	151	160	154	163	157
2000	-7	19	1315	327	327	154	153	158	157	161	160
4000	-11	12	1315	320	320	152	155	156	159	159	162
6000	-14	7	1315	315	315	150	158	154	162	157	165
8000	-18	0	1315	310	310	147	160	152	164	155	168
10000	-22	-8	1274	299	299	142	158	147	164	151	169
12000	-26	-15	1205	282	282	134	154	141	162	145	167
14000	-30	-22	1138	267	267	125	149	134	159	139	165
16000	-34	-29	1072	252	252	112	137	126	154	133	163
18000	-39	-38	1007	237	237	---	---	117	148	126	160
20000	---	---	---	---	---	---	---	---	---	---	---
22000	---	---	---	---	---	---	---	---	---	---	---
24000	---	---	---	---	---	---	---	---	---	---	---
26000	---	---	---	---	---	---	---	---	---	---	---
28000	---	---	---	---	---	---	---	---	---	---	---
29000	---	---	---	---	---	---	---	---	---	---	---

Estimated Cruise Performance

MAXIMUM RECOMMENDED CRUISE POWER
ONE ENGINE INOPERATIVE

1900 RPM

ISA - 10°C

PRESSURE ALTITUDE FEET	IOAT °C	IOAT °F	TORQUE FT LBS	FUEL FLOW LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS 9500 LBS CAS	9500 LBS TAS	8500 LBS CAS	8500 LBS TAS	7500 LBS CAS	7500 LBS TAS
SL	7	45	1315	337	337	155	152	159	156	162	159
2000	3	37	1315	329	329	153	155	157	158	160	161
4000	-1	30	1315	321	321	151	157	155	161	158	164
6000	-4	25	1315	315	315	148	159	152	163	156	167
8000	-8	18	1255	300	300	142	156	147	162	151	167
10000	-12	10	1178	282	282	133	152	140	159	145	165
12000	-17	1	1115	267	267	124	146	133	156	139	163
14000	-21	-6	1053	252	252	112	135	126	152	133	161
16000	-25	-13	993	238	238	---	---	117	146	126	158
18000	---	---	---	---	---	---	---	---	---	---	---
20000	---	---	---	---	---	---	---	---	---	---	---
22000	---	---	---	---	---	---	---	---	---	---	---
24000	---	---	---	---	---	---	---	---	---	---	---
26000	---	---	---	---	---	---	---	---	---	---	---
28000	---	---	---	---	---	---	---	---	---	---	---
29000	---	---	---	---	---	---	---	---	---	---	---

Estimated Cruise Performance

MAXIMUM RECOMMENDED CRUISE POWER
ONE ENGINE INOPERATIVE

ISA

1900 RPM

PRESSURE ALTITUDE FEET	IOAT °C	IOAT °F	TORQUE FT LBS	FUEL FLOW LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS 9500 LBS CAS	9500 LBS TAS	8500 LBS CAS	8500 LBS TAS	7500 LBS CAS	7500 LBS TAS
SL	17	63	1315	340	340	154	154	157	157	160	160
2000	13	55	1294	328	328	150	154	154	159	157	162
4000	9	48	1262	314	314	145	154	150	159	154	163
6000	5	41	1219	300	300	140	153	146	159	150	163
8000	1	34	1164	285	285	133	150	140	157	145	163
10000	-3	27	1102	269	269	125	145	133	155	139	161
12000	-7	19	1042	253	253	113	135	126	151	133	159
14000	-11	12	976	238	238	---	---	116	144	126	155
16000	---	---	---	---	---	---	---	---	---	---	---
18000	---	---	---	---	---	---	---	---	---	---	---
20000	---	---	---	---	---	---	---	---	---	---	---
22000	---	---	---	---	---	---	---	---	---	---	---
24000	---	---	---	---	---	---	---	---	---	---	---
26000	---	---	---	---	---	---	---	---	---	---	---
28000	---	---	---	---	---	---	---	---	---	---	---
29000	---	---	---	---	---	---	---	---	---	---	---

Estimated Cruise Performance

MAXIMUM RECOMMENDED CRUISE POWER
ONE ENGINE INOPERATIVE

ISA + 10°C

1900 RPM

PRESSURE ALTITUDE FEET	IOAT °C	IOAT °F	TORQUE FT LBS	FUEL FLOW LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS 9500 LBS CAS	9500 LBS TAS	8500 LBS CAS	8500 LBS TAS	7500 LBS CAS	7500 LBS TAS
SL	27	81	1191	321	321	144	147	149	152	153	155
2000	23	73	1167	309	309	140	147	145	152	149	157
4000	19	66	1141	296	296	136	147	142	153	146	158
6000	15	59	1107	283	283	130	144	137	152	142	158
8000	11	52	1061	269	269	122	140	131	150	137	157
10000	7	45	1011	254	254	110	130	124	147	132	156
12000	3	37	959	240	240	---	---	116	142	125	153
14000	---	---	---	---	---	---	---	---	---	---	---
16000	---	---	---	---	---	---	---	---	---	---	---
18000	---	---	---	---	---	---	---	---	---	---	---
20000	---	---	---	---	---	---	---	---	---	---	---
22000	---	---	---	---	---	---	---	---	---	---	---
24000	---	---	---	---	---	---	---	---	---	---	---
26000	---	---	---	---	---	---	---	---	---	---	---
28000	---	---	---	---	---	---	---	---	---	---	---
29000	---	---	---	---	---	---	---	---	---	---	---

Estimated Cruise Performance

MAXIMUM RECOMMENDED CRUISE POWER
ONE ENGINE INOPERATIVE

ISA +20°C

1900 RPM

PRESSURE ALTITUDE FEET	IOAT °C	IOAT °F	TORQUE FT LBS	FUEL FLOW LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS 9500 LBS CAS	9500 LBS TAS	8500 LBS CAS	8500 LBS TAS	7500 LBS CAS	7500 LBS TAS
SL	37	99	1063	302	302	133	138	140	144	144	149
2000	33	91	1046	290	290	129	137	136	145	141	150
4000	29	84	1026	279	279	124	136	132	145	138	151
6000	25	77	997	266	266	116	132	127	144	134	151
8000	21	70	957	253	253	---	---	121	141	129	150
10000	17	63	911	239	239	---	---	112	135	123	148
12000	---	---	---	---	---	---	---	---	---	---	---
14000	---	---	---	---	---	---	---	---	---	---	---
16000	---	---	---	---	---	---	---	---	---	---	---
18000	---	---	---	---	---	---	---	---	---	---	---
20000	---	---	---	---	---	---	---	---	---	---	---
22000	---	---	---	---	---	---	---	---	---	---	---
24000	---	---	---	---	---	---	---	---	---	---	---
26000	---	---	---	---	---	---	---	---	---	---	---
28000	---	---	---	---	---	---	---	---	---	---	---
29000	---	---	---	---	---	---	---	---	---	---	---

Estimated Cruise Performance

MAXIMUM RECOMMENDED CRUISE POWER
ONE ENGINE INOPERATIVE

ISA + 30°C — 1900 RPM

PRESSURE ALTITUDE FEET	IOAT °C	IOAT °F	TORQUE FT LBS	FUEL FLOW LBS/HR	TOTAL FUEL FLOW LBS/HR	AIRSPEED KNOTS 9500 LBS CAS	9500 LBS TAS	8500 LBS CAS	8500 LBS TAS	7500 LBS CAS	7500 LBS TAS
SL	47	117	940	283	283	118	124	129	135	135	142
2000	43	109	928	272	272	112	121	125	135	132	143
4000	39	102	914	261	261	---	---	121	135	129	144
6000	35	95	889	250	250	---	---	115	132	124	143
8000	31	88	851	236	236	---	---	105	124	119	141
10000	---	---	---	---	---	---	---	---	---	---	---
12000	---	---	---	---	---	---	---	---	---	---	---
14000	---	---	---	---	---	---	---	---	---	---	---
16000	---	---	---	---	---	---	---	---	---	---	---
18000	---	---	---	---	---	---	---	---	---	---	---
20000	---	---	---	---	---	---	---	---	---	---	---
22000	---	---	---	---	---	---	---	---	---	---	---
24000	---	---	---	---	---	---	---	---	---	---	---
26000	---	---	---	---	---	---	---	---	---	---	---
28000	---	---	---	---	---	---	---	---	---	---	---
29000	---	---	---	---	---	---	---	---	---	---	---

Estimated Cruise Performance

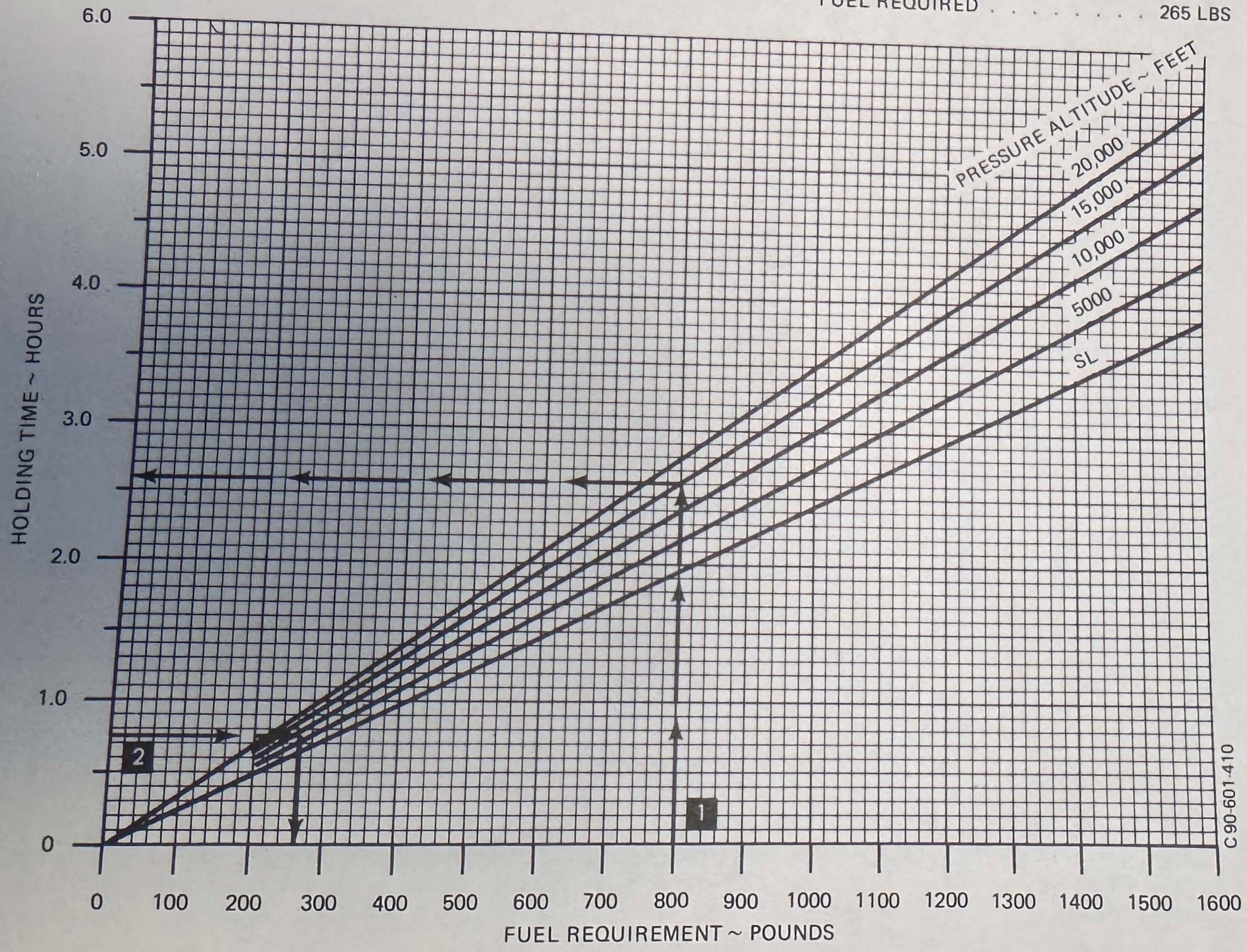
HOLDING TIME

ASSOCIATED CONDITIONS:

TORQUE SETTING	500 FT - LBS
PROPELLER SPEED	1900 RPM

EXAMPLES:

1	FUEL AVAILABLE FOR HOLDING	800 LBS
	PRESSURE ALTITUDE	15,000 FT
2	HOLDING TIME	2.6 HRS (2 HRS - 36 MIN)
	REQUIRED HOLDING TIME	45 MIN (.75 HRS)
	HOLDING PRESSURE ALTITUDE	8000 FT
	FUEL REQUIRED	265 LBS



TIME, FUEL, AND DISTANCE TO DESCEND

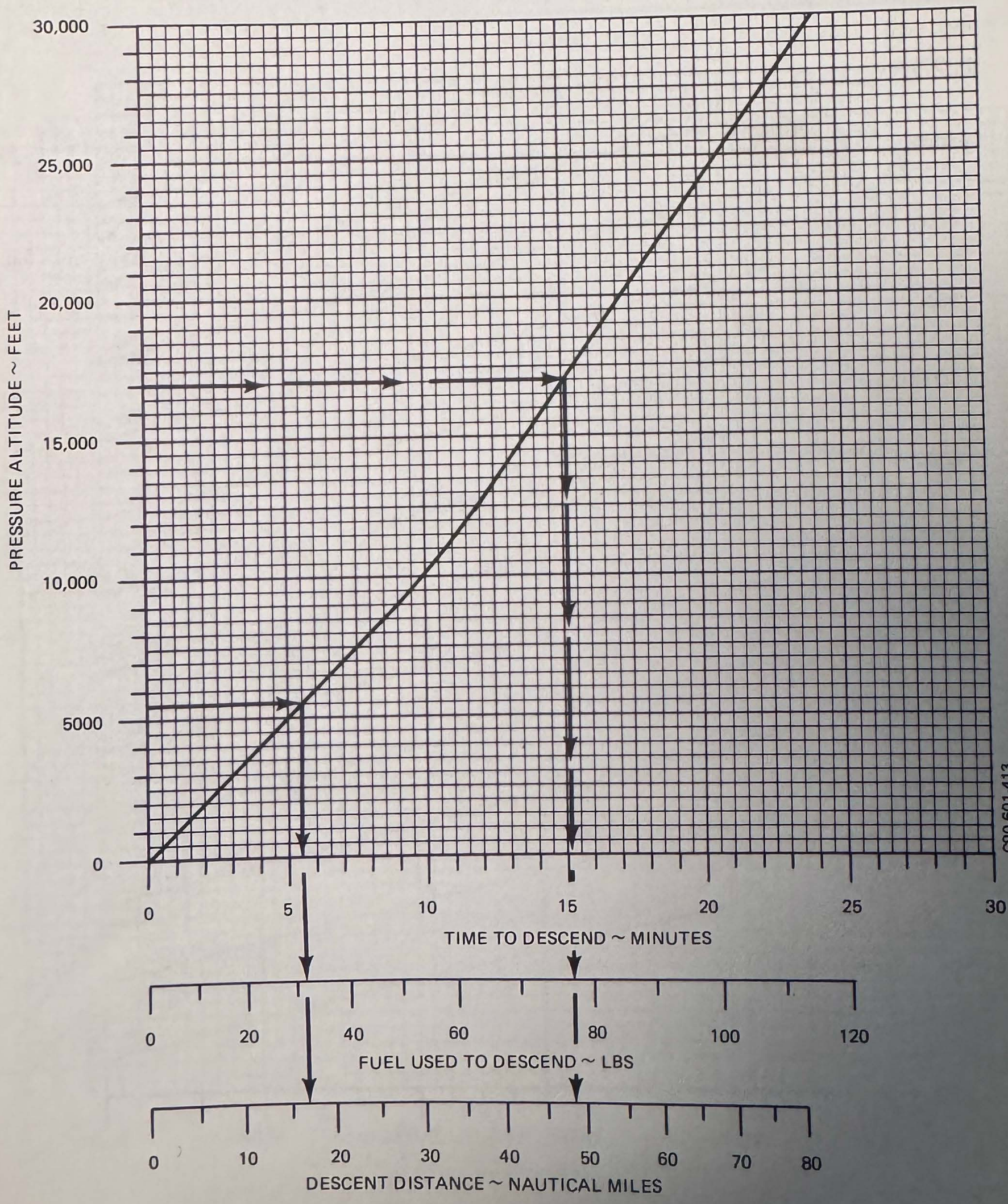
DESCENT SPEED-169 KNOTS

ASSOCIATED CONDITIONS:

POWER	AS REQUIRED TO DESCEND AT 1500 FT/MIN; 1000 FT/MIN BELOW 10,000 FEET
LANDING GEAR	UP
FLAPS	UP (0%)
PROPELLER SPEED	1900 RPM

EXAMPLE:

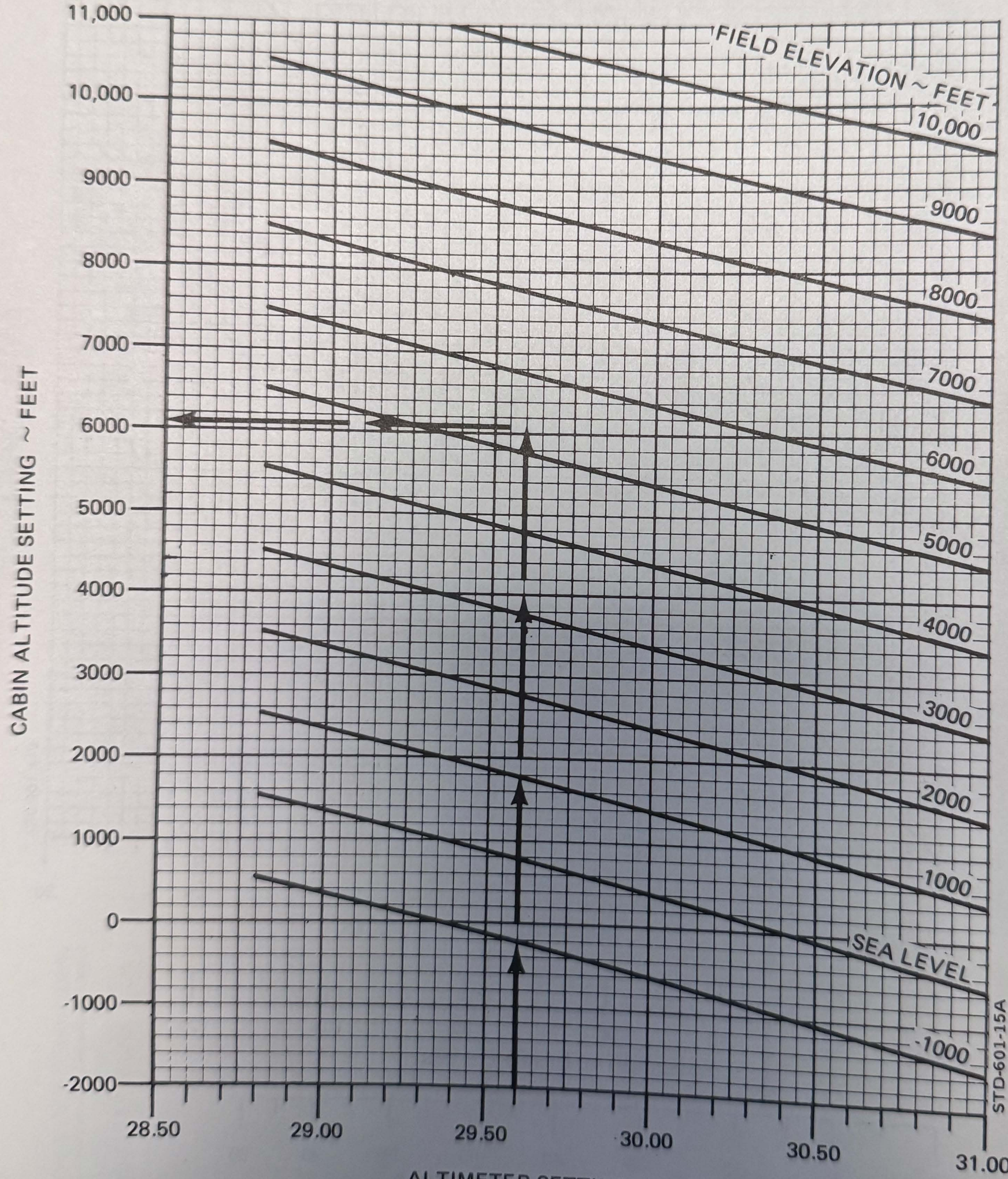
INITIAL ALTITUDE	17,000 FT
FINAL ALTITUDE	5651 FT
TIME TO DESCEND	(15-5.5) = 9.5 MIN
FUEL TO DESCEND	(77-31) = 46 LBS
DESCENT DISTANCE	(48-16) = 32 NM



PRESSURIZATION CONTROLLER SETTING FOR LANDING

EXAMPLE

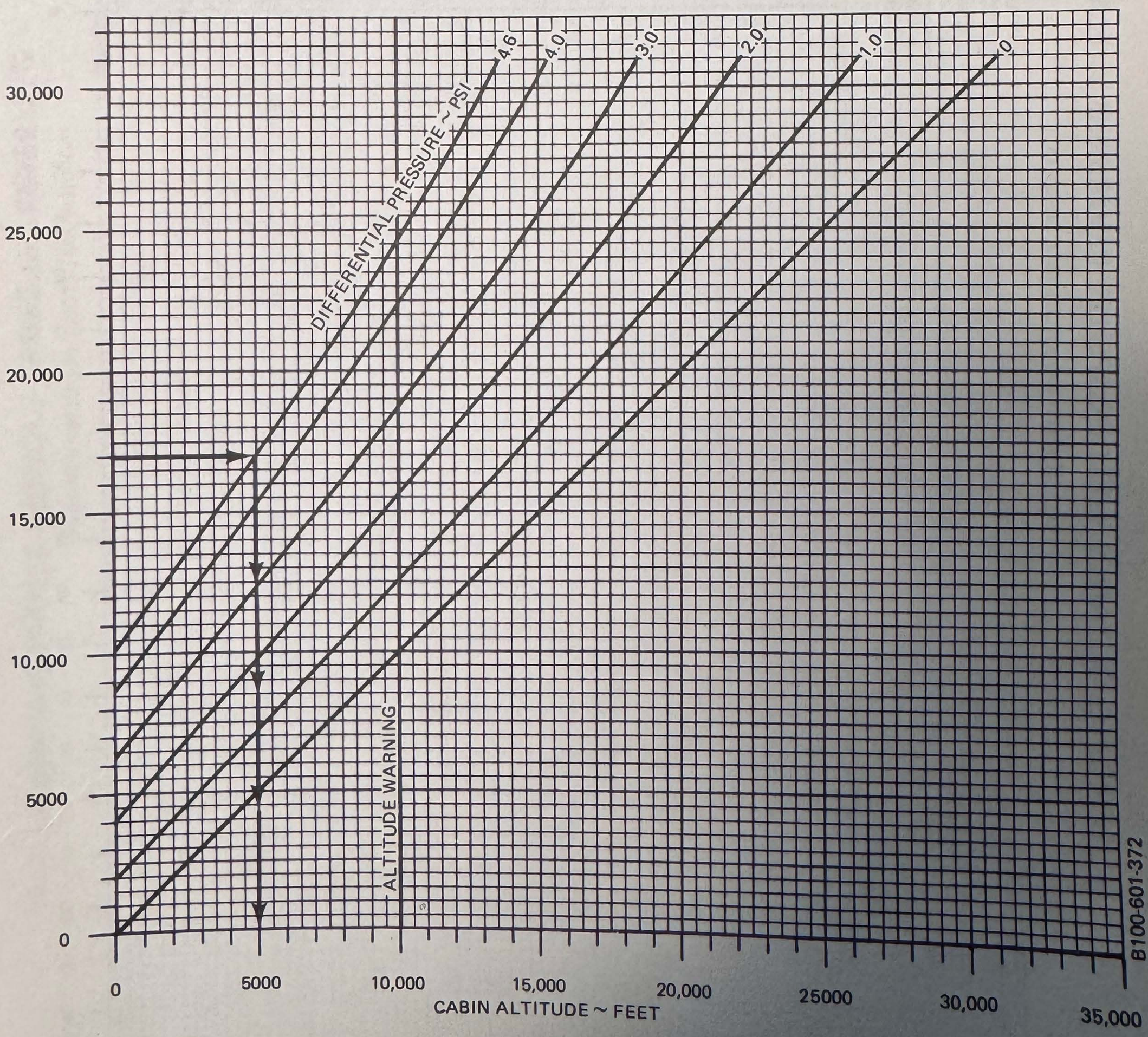
ALTIMETER SETTING	29.60 IN. HG
LANDING FIELD ELEVATION	5330 FT
CABIN ALTITUDE SETTING	6100 FT



CABIN ALTITUDE FOR VARIOUS AIRPLANE ALTITUDES

EXAMPLE:

AIRPLANE ALTITUDE	17,000 FT
DIFFERENTIAL PRESSURE	4.6 PSI
CABIN ALTITUDE	5000 FT



LANDING DISTANCE WITH PROPELLER REVERSING — FLAPS 100%

APPROACH SPEED-100 KNOTS (ALL WEIGHTS)

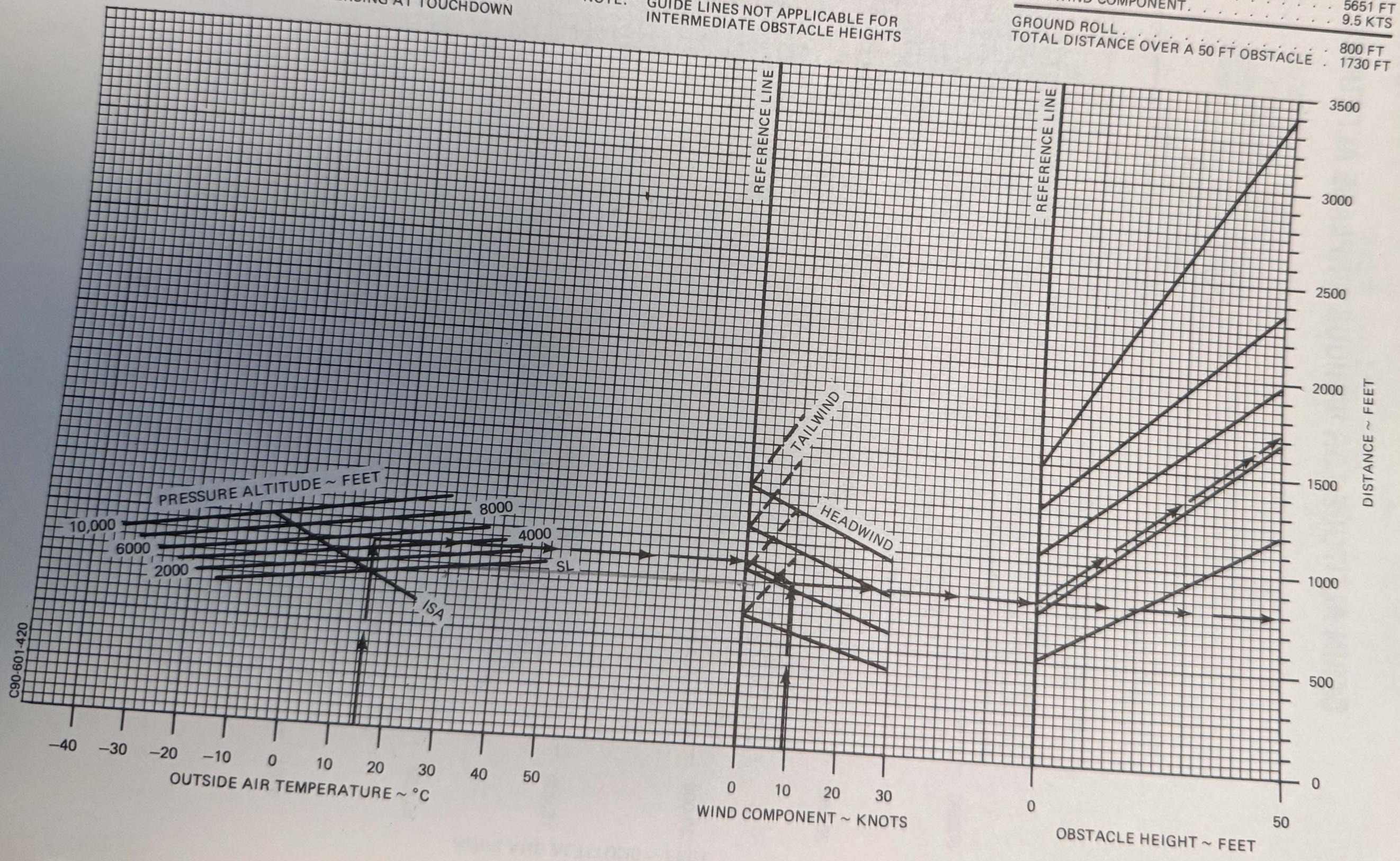
ASSOCIATED CONDITIONS:

POWER	RETARDED TO MAINTAIN 800 FT/MIN ON FINAL APPROACH
FLAPS	DOWN (100%)
LANDING GEAR	DOWN
RUNWAY	PAVED, LEVEL, DRY SURFACE
BRAKING	MAXIMUM WITH PROPELLER REVERSING AT TOUCHDOWN

NOTE: GUIDE LINES NOT APPLICABLE FOR INTERMEDIATE OBSTACLE HEIGHTS

EXAMPLE:

OAT	15°C
PRESSURE ALTITUDE	5651 FT
HEADWIND COMPONENT	9.5 KTS
GROUND ROLL	800 FT
TOTAL DISTANCE OVER A 50 FT OBSTACLE	1730 FT



LANDING DISTANCE WITH PROPELLER REVERSING — FLAPS 100%

APPROACH SPEED-100 KNOTS (ALL WEIGHTS)

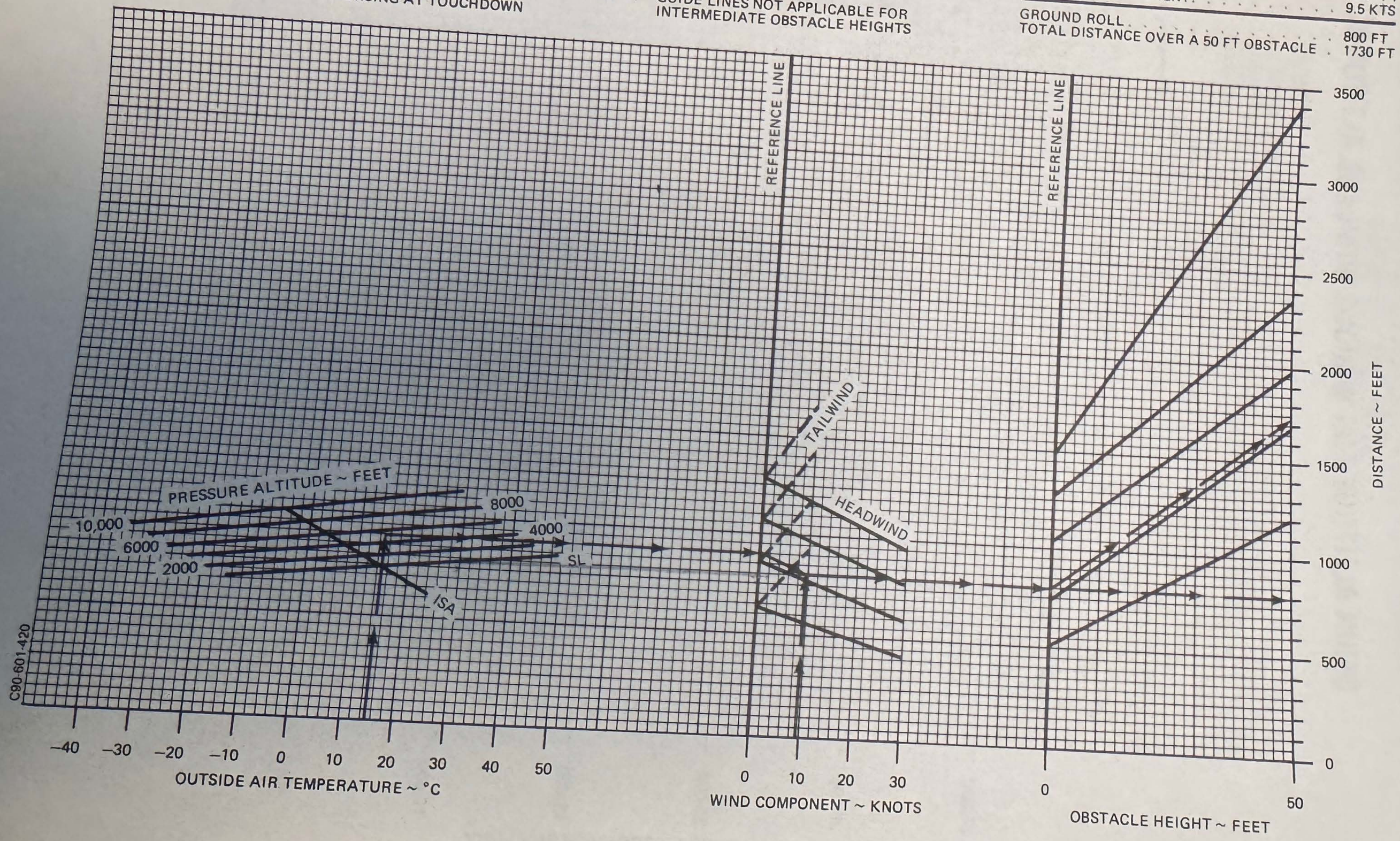
ASSOCIATED CONDITIONS:

POWER	RETARDED TO MAINTAIN 800 FT/MIN ON FINAL APPROACH
FLAPS	DOWN (100%)
LANDING GEAR	DOWN
RUNWAY	PAVED, LEVEL, DRY SURFACE
BRAKING	MAXIMUM WITH PROPELLER REVERSING AT TOUCHDOWN

NOTE: GUIDE LINES NOT APPLICABLE FOR INTERMEDIATE OBSTACLE HEIGHTS

EXAMPLE:

OAT	15°C
PRESSURE ALTITUDE	5651 FT
HEADWIND COMPONENT	9.5 KTS
GROUND ROLL	800 FT
TOTAL DISTANCE OVER A 50 FT OBSTACLE	1730 FT



LANDING DISTANCE WITHOUT PROPELLER REVERSING — FLAPS 100%

APPROACH SPEED-100 KNOTS (ALL WEIGHTS)

ASSOCIATED CONDITIONS:

POWER	RETARDED TO MAINTAIN 800 FT/MIN ON FINAL APPROACH
FLAPS	DOWN (100%)
LANDING GEAR	DOWN
RUNWAY	PAVED, LEVEL, DRY SURFACE
BRAKING	MAXIMUM

EXAMPLE:

OAT	15°C
PRESSURE ALTITUDE	5651 FT
HEADWIND COMPONENT	9.5 KTS
GROUND ROLL	1200 FT
TOTAL DISTANCE OVER A 50 FT OBSTACLE	2125 FT

